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and Petroleum Industry

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IN THIS ISSUE

To combine in one location all the facilities of its scouting, editorial, draughting and photographic departments, California Oil World, effective April 1, was established in larger quarters in the 939 South Broadway Building.

This unification of facilities will prove of particular benefit to the many readers of California Oil World whose practice it has been to visit the publication's offices in quest of information and other services. The increased accessibility of the California Oil World's services should make the publication's offices more than ever the Clearing House for California oil men.

Report on the Williams Area of Midway-Sunset 3

Recently Developed Methods for Inspection of Tubular Goods and Sucker Rods (Concluded) 10

Western Metals Congress May 19-23 13

Petroleum Forum Position Defined 14

Contour Map of Williams Area in Midway-Sunset 16-17

Laugh This Off 18

Los Angeles Basin Development 19

San Joaquin Valley Development 22

Development 25

Coastal District Development 26

Production and Development 29

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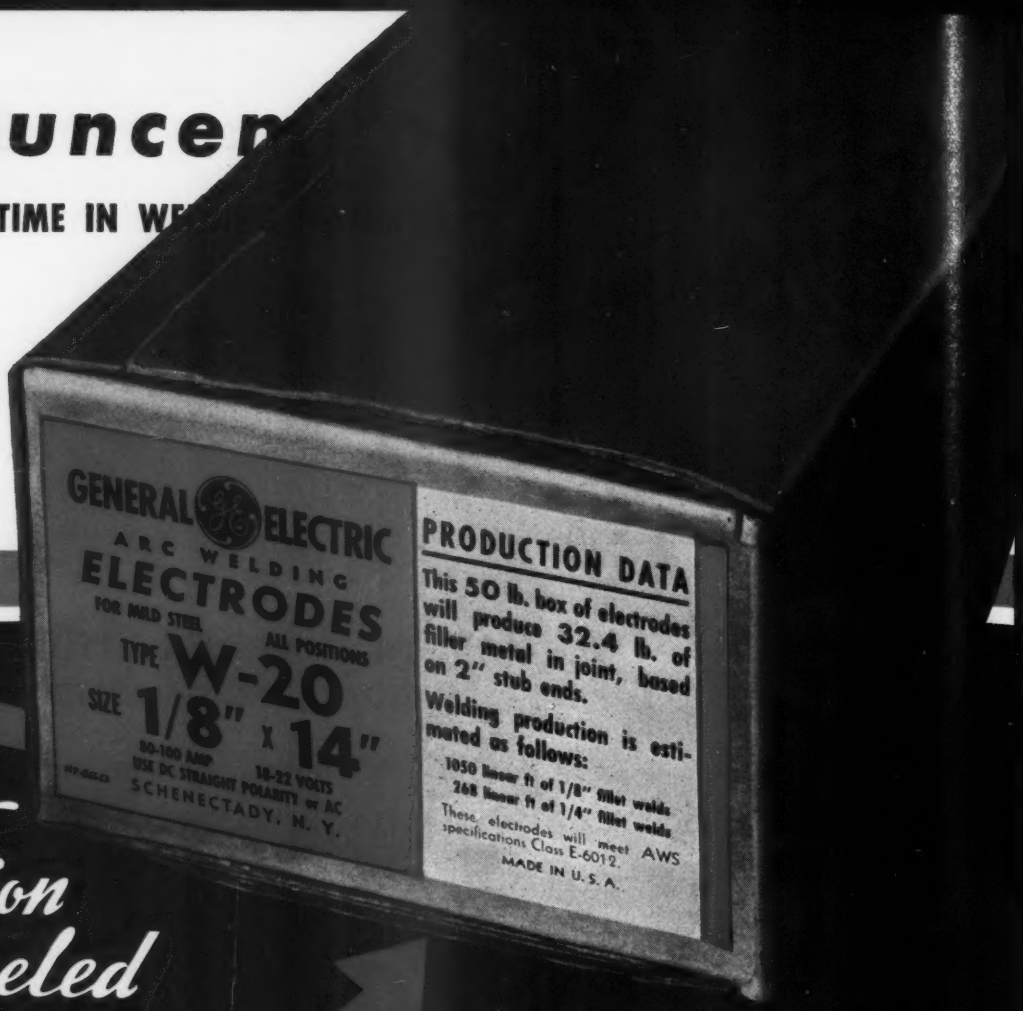
Announcem

FOR THE FIRST TIME IN W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GENERAL ELECTRIC

Report on the Williams Area of Midway Sunset Oil Field (See pages 16-17 for contour map)

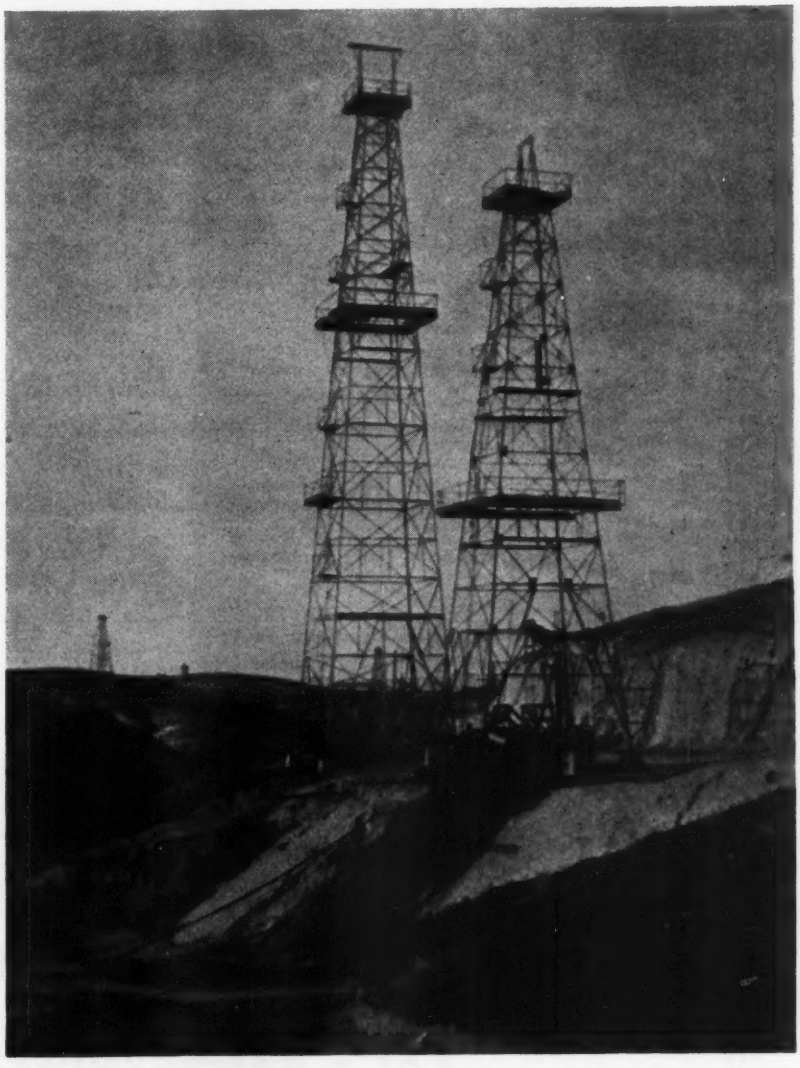
By W. T. Woodward*

This paper was prepared to form a part of Bulletin 118, "Geologic Formations and Economic Development of Oil and Gas Fields of California", (now in press) prepared under the direction of Dr. Olaf P. Jenkins, Chief Geologist, Geologic Branch, California State Division of Mines. It is reproduced herewith through the courtesy and permission of Walter W. Bradley, State Mineralogist.

The Williams area of the great Midway-Sunset oil field is that development situated in the SE/4 of Section 21, SW/4 of 22, and along the north line of 27, Township 32 South, Range 23 East, M. D. B. & M., about two miles southwest of Taft, Kern County, California. It derives its name from the discovery well, Union Oil Company's "Williams" No. 1, Section 22 32/23. The area is sometimes referred to, locally as "Little Signal Hill", as suggested by the close spacing of derricks.

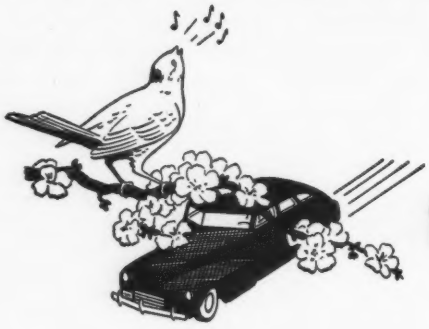
The productive wells are located on the southwest flank of a northwest-southeast striking anticline, the sharp axis of which cuts the center of the southwest quarter of section 22 (see map on pages 16-17). In the deep gully just west of the center of the southwest quarter of section 22, the axis is exposed, with the Tulare (Pleistocene) formation resting unconformably on Miocene brown shales believed to be the equivalent of the Reef Ridge (Pack's Upper Maricopa or Barbat's Belridge Diatomite facies) formation. The northeast flank is more steeply tilted than the southwest, a condition which exists with depth as borne out by subsequent development.

Although prospected with the drill as early as 1910, commercial production of oil was not realized until 1928, when on the 19th day of November Union Oil Company completed "Williams" No. 1 for a settled production of 250 B/D, 13.8° oil, cutting 2% B. S. & W. Located just southwest of the center of the Southwest quarter of Section 22, near the apex of the surface axis, the hole was spudded June 5, 1929, and drilled to a total depth of 2888 feet. It was cored almost continuously below 614 feet. The drill penetrated 130 feet of Tulare (see accompanying composite sections) formation before entering brown shales of Miocene age, similar to those exposed at the surface, which succession continued to a depth of 836 feet. At this point a change in character of the shales was noted, the shale becoming denser and brittle; with oil stained lenses, laminations and partings of fine sand occurring at 872 feet and becoming more numerous with depth. Lithologically these shales closely resemble those of the McLure (Pack's Lower Maricopa) formation.** At a depth of 1243 feet a sizeable body of oil sand was encountered, and from this depth to



Tall derrick at left is Union Oil Co. Williams No. 1, Sec. 22, 32-23, completed Nov. 19, 1929 producing from sand members of a Miocene formation between depths of 1205-1494 feet. Drilled to a depth of 2888 feet it was plugged back because of wet appearing sands due to its relatively low structural position. Higher wells subsequently produced from the entire sand section. Short derrick is Williams No. 2, producing from intermediate and lower Williams zones, 1580-2000 feet. Old field derricks in background.

IT'S SPRING!



– and here's how to pep up the old car

In the Spring a young man's fancy turns to snappier motor acceleration, among other things. And here's how to get it!

1. Soon as your gas tank gets real low, fill it with the gasoline that is refined to strict aviation specifications — Associated Aviation Ethyl.

2. Get that Winter oil *and dirt* drained out of your crank-case—and refill with a light, lively grade of Veedol 100% Pennsylvania.

3. For super-super performance, get your motor tuned up—plugs, distributor and carburetor cleaned and timing advanced—to take full advantage of Associated Aviation Ethyl's extra power, pep and zingo.

4. Have the car washed—and then get the full treatment of Veedol *Safety-Check* Lubrication. Pin down your tie—and *fly the highways.*

Associated Aviation Ethyl has an extra responsiveness to the throttle. It *outperforms* automotive Ethyls. Veedol is the *aristocrat* of all the Pennsylvania motor oils. Veedol *Safety-Check* Lubrication reveals the true condition of vital chassis parts in addition to protecting bearing surfaces.

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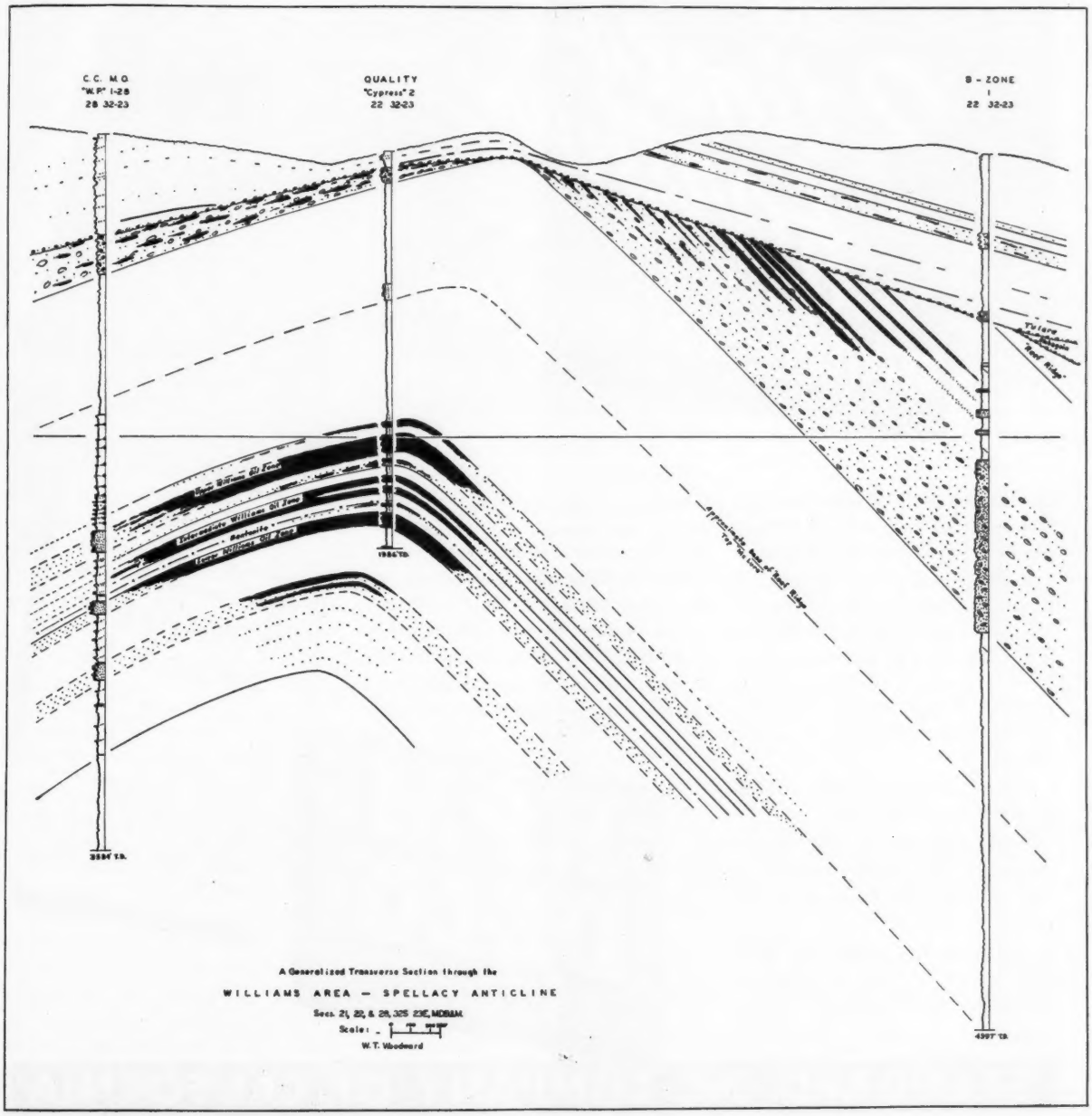
2458 feet the beds were substantially oil stained sands. Below 2458 feet to the total depth, 2888 feet, the formation was mostly brown shale with only minor streaks of oil stained or gray sand. Some of the oil stained sands were described as wet below a depth of 1526 feet. The hole was subsequently plugged to 1494 feet, a water shut-off effected at 1205 feet, a liner installed, bailed clean, tubing and rods run and put to pumping.

Several months prior to this discovery, Union had started a well just southwest of the NE corner of the NW/4 of the NE/4 of Section 27 32/23. The project had been spudded in August 4, 1928, following development of excellent production from sands in Miocene shales by Republic Petroleum Company near the W/4 corner of Section 8 32/23. Located near the surface axis, the Union well then known as "Western Petroleum" No. 1, (now C.C.M.O. "WP" 1), started in search of a series of sand members approximating a thickness of 1000 feet which crop out among Miocene shales about one mile to the south, along the north flank of Temblor Range. The hole was eventually drilled to a total depth of 4958 feet, encountering a section of sand with minor amounts of shale between 1723 and 3022 feet. This was the first well in the area to find the sand equivalent to the outcrops and although it was oil stained in portions, it lacked sufficient saturation; and prospecting was continued. Following developments in "Williams" No. 1, "Western Petroleum" No. 1 was



A Generalized Transverse Section through the

WILLIAMS AREA — SPELLACY ANTICLINE

Secs. 21, 22, & 28, 32S 23E, MDB&M.

Scale: - 1" = 1000'

W. T. Woodward

Speeding back and forth between Chicago and Peoria—644 miles a day on a mile-a-minute schedule—

Rock Island Rocket #601 now *travels 150,000 miles between piston inspections.* Before using RPM DELO it was necessary to pull, inspect and clean pistons in the Rocket's 16-cylinder Electro Motive Diesel *at one-third this distance*—every 50,000 miles!

Cylinder wear has hit a record low of .0005" in 160,000 miles!

Piston rings now operate 180,000 miles between replacements—the best ring mileage Rock Island has ever had.

And valves last longer, too! RPM DELO has kept them working perfectly for over 400,000 miles.

Because it keeps *engines so clean* and lowers wear rate of all engine parts so much—RPM DELO has been chosen by Rock Island for 6 Rockets and most of its Caterpillar, Hamilton and Cummins Diesels used in passenger and switching service.

Aren't these reasons enough for trying it in your Diesel equipment? Do it now!

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get top power—top engine protection with
STANDARD DIESEL FUEL

No matter how long or hard you work your engine, Standard Diesel Fuel delivers smooth, uniform FULL POWER hour after hour. And it's the safest power you can buy. Completely distilled—100% clean—Standard Diesel Fuel protects fuel pumps and injectors perfectly. It's the buy for your Diesels!

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STANDARD OIL COMPANY OF CALIFORNIA

completed, producing water along with the oil from a stratigraphically lower zone.

In 1910, North American Oil Consolidated drilled a hole just southwest of the N/4 corner of Section 27 32/23 to a depth of 1400 feet, stopping just 50 feet short of what unquestionably would have been the discovery of the area and its subsequent development some 18 years earlier.

In 1921, Coast Range Oil Company drilled its "Coast Range" No. 2 to a depth of 1266 feet, stopping approximately 100 feet above the first good body of rich oil sand. This project was located near the apex of the structure just southeast of the NW cor. of the SW/4 of the SW/4 of Section 22, and could have been the discoverer. Another well drilled during the same year, by Bulleri Oil Company to a depth of 1575 ft. near the center of the S/2 of Section 22, would unquestionably have led to the discovery had it penetrated another 125 feet.

Started in 1923, literally on top of the accumulation, Seven States Oil Company would have met with success and led to earlier development of the area had it penetrated another 620 feet. Another 1923 start, also located in the NW/4 of the SW/4 of Section 22, was Community Land Subdivision Co. No. 1. Although it didn't get very far (173 feet), it would have led to an ultimate discovery had it been carried deeper.

Following completion of "Williams" No. 1 by Union in 1928, development was slow, probably due to a combination of lack of demand for heavy oil, depression, and failure to solve the structural peculiarities of the area, until April, 1936. Of the dozen wells drilled in the interim, two were failures, one delineating the productive limits of the northeast flank (Belmont-Midway No. 1, near center NE/4 SW/4 Section 22) and the other (Union Oil Company, "Reeves" 1, southeast of the NW cor. NE/4 NE/4 Section 27) determining the southeast limits of the accumulation. A third well, C.C.M.O.'s No. 17 in Section 21 32/23, a northwest extension attempt, was drilled in July, 1935, to a depth of 1983 feet. Coring was continuous from 1355 feet and only a small amount of the 66.8% of formation recovered was oil sand. The hole was electrically logged, being the first well in the area to employ the new device, which later contributed so much to development as well as solution of the structure's geologic complexities. The project was suspended, probably due to the implication suggested by the apparent lack of oil sand in the section cored.

Next development was completion of a well in January, 1936, by Quality Oil Company, "WP" 1, just southwest of the north quarter corner of section 27 32/23. Within a few feet of where twenty-six years earlier North American Oil Consolidated abandoned its No. 4 at 1400 feet, Quality brought in a good well from a depth of 1545 feet, for a settled production of 122 B/D, 12.2°, clean oil.

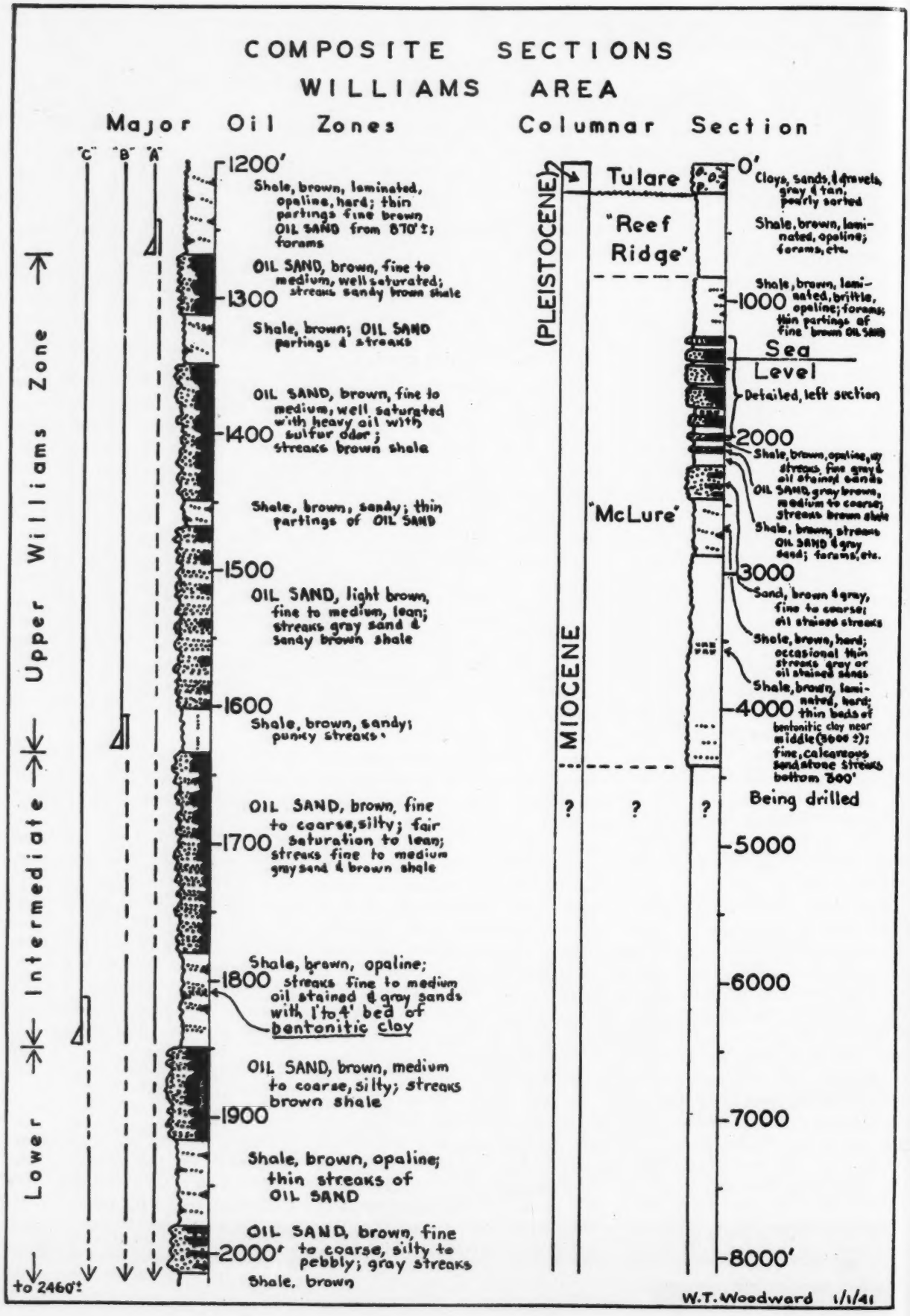
Following this completion, Quality moved up to the vicinity where the sands could be expected higher and in April, 1936, spudded "Cypress" No. 2, just southwest of the center of the southwest quarter of Section 22. Within a few feet of the "Coast Range" project which stopped at 1266 feet fifteen years earlier, "Cypress" No. 2 topped oil sand at 1359 feet and cored almost continuously to 1986 feet, a sand section comparable to that cored in Union's discovery well. While Quality was casing off the upper sand and making preparations to complete the well producing from lower horizons previously considered by many to be worthless, C.C.M.O. went back into its No. 17, deepened it 122 feet to 2105 feet and completed it on June 21st. From the interval, 1425 to 2105 feet, the well pumped an average of 770 B/D of 18.3° practically clean oil during the first thirty days. At times the well produced more than 1000 B/D. This spectacular performer led to the feverish development justifying its frequent allusion to Signal Hill and its subsequent nickname, "Little Signal Hill". Only a few days after initial production from C.C.M.O.'s No. 17, Quality's "Cypress" No. 2 was completed June 29th which resulted in a settled production of 275 B/D of 17.1° oil, cutting 2%. Other wells were completed in rapid succession, producing from various zones or different combinations of zones.

The "Cypress" No. 2 well established the occurrence of well saturated sands in what has evolved into three separate zones (see composite section). C.C.M.O. Company No. 17 established the fact that in spite of the apparent change in lithology, a large portion of the sand section to shale, the three zones could be produced simultaneously.

There are 67 productive wells in the immediate area to date, 12 abandoned wells (five of which were drilled prior to discovery), and one drilling well. By a strange coincidence North American Oil Consolidated, one half mile due west of where it stopped a few feet short of success in 1910, is currently prospecting below 5000 feet in the northeast corner of Section 28 32/23.

Development of the structure has revealed its asymmetry, conforming to surface beds. The northeast flank is much steeper than the southwest, and the northwest plunge is steeper than the southeast. The 1200-foot sand section cored in the well just southwest of the NE cor. of the NW/4 of the NE/4 of Section 27 has changed to substantially all shale at the northeasternmost development. There seems to be at least 250 feet of anticlinal closure. The proven portion embraces approximately 175 acres, with productive limits entirely established. (see map on pages 16-17).

During the first six years of development of the structure, the wells (with one exception) were completed producing from the upper 200 feet of the "Williams" sand, a pattern suggested by the discov-


COMPOSITE SECTIONS
WILLIAMS AREA
Major Oil Zones
Columnar Section
"C"
"B"
"A"
Lower Intermediate Upper Williams Zone
1200'
Shale, brown, laminated, opaline, hard; thin partings fine brown OIL SAND from 870'±; forams
OIL SAND, brown, fine to medium, well saturated; streaks sandy brown shale
1300
Shale, brown; OIL SAND partings & streaks
OIL SAND, brown, fine to medium, well saturated with heavy oil with sulfur odor; streaks brown shale
1400
Shale, brown, sandy; thin partings of OIL SAND
1500
OIL SAND, light brown, fine to medium, lean; streaks gray sand & sandy brown shale
1600
Shale, brown, sandy; punky streaks
OIL SAND, brown, fine to coarse, silty; fair saturation to lean; streaks fine to medium gray sand & brown shale
1700
Shale, brown, opaline; streaks fine to medium oil stained & gray sands with 1' to 4' bed of bentonitic clay
1800
OIL SAND, brown, medium to coarse, silty; streaks brown shale
1900
Shale, brown, opaline; thin streaks of OIL SAND
OIL SAND, brown, fine to coarse, silty to pebbly; gray streaks
2000'
Shale, brown
to 2460'±
(PLEISTOCENE)
MIOCENE
Tulare
"Reef Ridge"
"McLure"
?
?
?
0'
Clays, sands & gravels, gray & tan, poorly sorted
Shale, brown, laminated, opaline; forams, etc.
Shale, brown, laminated, brittle, opaline; forams; thin partings of fine brown OIL SAND
1000
Sea Level
Detailed, left section
2000
Shale, brown, opaline, w/ streaks fine gray & oil stained sands
OIL SAND, gray brown, medium to coarse; streaks brown shale
Shale, brown, streaks OIL SAND & gray sand; forams, etc.
3000
Sand, brown & gray, fine to coarse; oil stained streaks
Shale, brown, hard; occasional thin streaks gray or oil stained sands
Shale, brown, laminated, hard; thin beds of bentonitic clay near middle (3600'±); fine, calcareous sandstone streaks bottom 300'
4000
Being drilled
5000
6000
7000
8000'
W.T. Woodward 1/1/41

ery well. The third sand member of the section was wet in the discovery well, necessitating plugging it off together with all lower sands. This member apparently had changed entirely to shale at the C.C.M.O. No. 17 location. Later wells in the portion of the area where the sand section was best developed cased off in a shale immediately below the third sand member, thus casing off the Upper Williams zone and producing from sands below it.

Other wells cased off in a shale below the fourth sand member, thus creating an Intermediate Williams zone. All the sands below this fourth sand thus became the third or Lower Williams zone.

The shale immediately above the Lower Williams zone is characterized by a thin bed (¼-foot) of yellowish, waxy, bentonitic clay which shows negative resistivity and self-potential on electric logs. This has been a valuable aid in establishing correlations.

Most of the wells in the northwest portion of the pool, where the sand is represented mostly by shale, have penetrated the equivalent of the entire Williams Sand section, roughly 1200 feet, casing off at the top of either the Upper of Lower Williams zones. (see casing plans "A" and "C" on composite sections.) Wells in the Southeast portion of the area, where the sands reach maximum development, rarely have penetrated very far below the second sand member of the Lower Williams zone. A majority has the Intermediate and Lower zones open to production (see "B" of composite section); and one operator blanks off the lower portion of the Intermediate zone leaving only the top portions of both open to production. As previously stated, most of the early wells were completed in the Upper Williams zone. This zone is structurally highest near the discovery well which indicated the third finger was wet.

Normal rotary drilling technique was employed in development of the area. Some operators cemented 50 to 100 feet of surface pipe while others depended on short conductors. To provide a large liner for the low gravity oil, large water strings were installed in about half the wells. Usually a 14¾ or 15-inch hole was drilled to receive the 10¾-inch water string; and the 8⅝-inch liner was landed in 10⅝-inch hole. Most of the other wells had an 8⅝-inch water string cemented in 12¼-inch hole and a 6⅝-inch liner was run in about 9-inch hole. Circulation was very often lost while drilling in the fractured shale zone containing the bentonitic clay bed, just above the first oil sand of the Lower Williams zone. In most cases circulation was reestablished with beet pulp added to the native clay base muds, but in a few instances never regained. This misfortune precluded either coring or electrically logging some holes.

There was usually no difficulty in obtaining water shut offs, most of which were made with drill stem testers. Before running the liner the oil zone was usually reamed or scraped and the liner run in and suspended from the shoe joint of the water string. Perforations ranged in size from sixty to two hundred and fifty mesh, but most were of 120 or 140 mesh slots.

Three inch pump and tubing was generally installed to handle the large quantity of fluid. Initial productions of 300 to 600 B/D of 12 to 17 gravity oil, cutting up to 20%, were common. Accompanying this oil was varying amounts of salt-water and lean petroleum gas, both with high sulfide contents and consequently of limited value. The water could not be used; but after scrubbing, the gas was found to be usable for fueling boilers and internal combustion engines.

In most cases the decline in oil production has been matched by the increase in water production for the area. In December, 1940, sixty-five wells had a combined potential rating of 4094 B/D, an average of 64.4 B/D oil. Actual net oil produced during December was 50,925 barrels. Of course, some of the wells were shut in entirely and others were pumped only a portion of the month to comply with curtailment regulations. During this same period a production of 121,007 barrels of water was reported. Thus the water production as of December, 1940, amounted to approximately 70% of the gross fluid pumped.

A ten acre parcel, taken at random, having four producing wells on it yielded more than 400,000 barrels of oil during the five years ending December 31, 1940. This amounts to a recovery to date of approximately 40,000 barrels to the acre.

*Consulting Petroleum Engineer-Geologist, Taft, Calif.

**According to W. F. Barbat, the formations herein correlated with "Reef Ridge" and "McLure" can also be correlated paleontologically with those formations.

Axelson Employe Joins R. A. F.

When Joe Jamison hurriedly turned in his keys and badge at the Axelson Manufacturing Co. a few nights ago and asked for his check, the R. A. F. gained twelve new pilots. Joe, six foot four and one-half inches tall, and weighing 210 pounds, was the twelfth of a dozen men, the smallest being six foot one, who were leaving next day for New York to fly to England. All had been commissioned in the Royal Air Force.

At first Joe worked days in the lathe assembly department of the Axelson Manufacturing Co. About three months ago he asked to be moved to the night shift so he could have more training during daylight hours. In this way Joe, with the hours he already had, was able to complete 760 flying hours.

On arrival in England Joe and his companions are to be assigned to flying bombers or Spitfires.

When Joe get to England he will probably meet some old friends, for a large number of Axelson Lathes have been shipped to England in the past year.

Mendocino Wildcat Passes 500 ft. Level

The N. F. Keyt well, located in sec. 3,12n-17w on Point Arena in Mendocino county, is drilling at 516 ft. in Middle Miocene formations which outcrop in the vicinity. Three former tests of the area, the deepest of which reached 2200 ft., are said to have found oil showings.

Recently Developed Methods for Inspection of Tubular Goods and Sucker Rods (Conclusion)

By H. M. Henderson
Standard Oil Company of California,
La Habra

Presented at the
Spring Meeting of the Pacific Coast District
A. P. I. Division of Production
Los Angeles, California
March 11, 1941

It has been found in a number of these circumstances that the new rods have shown the same characteristics on a Magnetest chart that are obtained from rods in a well in which failures are occurring. In other words, they appear to be poor material. One possible answer to this is that the material has high internal stresses which have not been relieved during fabrication. Just how this might promote early failure is not definitely known.

A great many interesting circumstances have been brought to light by Magnetest surveys and while many problems remain unanswered at this time, it is probable that longer experience will reduce this number a considerable degree.

It is to be generally conceded that an instrument which would satisfactorily segregate the poor rods from a string would be of great value to the industry including suppliers as well as users.

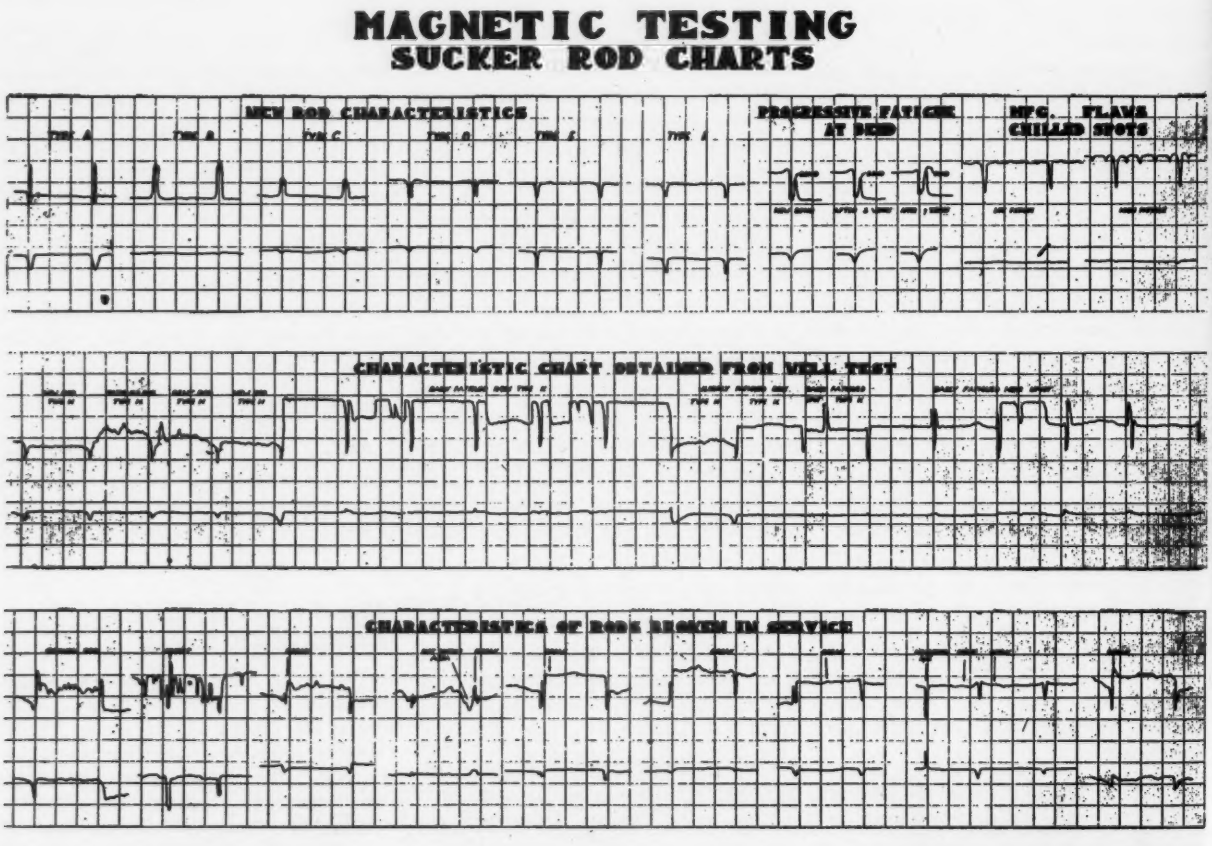
Inspection of Drill Pipe

In the drilling of an oil well by the rotary method, one of the items of equipment which can cause a great deal of expense and delay in the completion of the well is the drill pipe. Drill pipe is expensive in first cost but drill pipe failures sometimes cause additional expense which may be even greater than the original cost of the entire string of drill pipe.

Defects in drill pipe which may weaken the strength of the pipe are seldom apparent or visible to the eye because they generally occur inside the pipe or at the junction of two joints and inside the coupling. At times a crack will progress until the circulating mud cuts entirely through the pipe wall and the drilling crew are able to detect and remove the joint from the string before failure actually occurs. However, in the majority

Well	Depth	Rods	S.P.M.	Stroke Length	Plunger Size	Rods Removed After Survey	Failures 1 Year Before Survey	Period Operated Since Survey	Failures Since Survey
A	7170	37 1″ 54 ⅞″ 147 ¾″	18	108	1¼″	54	60	2½ months	1
B	3590	111 ¾″	12	44	1½″	12	1	2½ months	0
C	6569	93 ⅞″ 124 ¾″	Was 16 Now 23	60	1½″	12	118	5 months	0 (production doubled)
D	4547	43 ⅞″ 108 ¾″	24	54	1½″	38	40	2 months	1
E	4500	79 ⅞″ 70 ¾″	24	54	1¾″	11	25	2 months	0
F	4175	59 ⅞″ 77 ¾″	24	40	2 ″	75	84	3 months	0
G	6139	92 ⅞″ 111 ¾″	20	48	1½″	46⅛″ 93¾″	20	3 months	0
H	4000	37 ⅞″ 95 ¾″	22	66	2¼″	21	16	3 months	0

FIGURE 2


MAGNETIC TESTING
SUCKER ROD CHARTS
NEW ROD CHARACTERISTICS
PROGRESSIVE FATIGUE AT BEND
MFG. FLAWS CHILLED SPOTS
CHARACTERISTIC CHART OBTAINED FROM WELL TEST
CHARACTERISTICS OF RODS BROKEN IN SERVICE

Petreco Electromatic Dehydration long has been recognized as the standard of efficiency, economy, and dependable performance in treating all types of emulsified crudes . . . (1) Plants are the ultimate in modern design and advanced dehydration procedure . . . (2) The process assures the most complete dehydration as well as the lowest "cut". It recovers all the oil from the emulsion while restoring the entire production to its original gravity . . . (3) Treating costs usually are lower per barrel of cleaned oil than for other methods, and can be accurately estimated before plants are installed . . . (4) Plant performance and operating costs, being fixed, are not subject to wide fluctuations, thus assuring the ultimate dependability . . . (5) Designed and fabricated in strict accordance with the API-ASME code, Petreco installations conform fully to the most rigid safety requirements of oil field service.

When you encounter emulsion problems, investigate the Petreco process. Its high treating efficiency, economy and dependability can be demonstrated on samples of your own crude without obligation. Write direct, or call your nearest Petreco representative for detailed information.

PETROLEUM RECTIFYING COMPANY OF CALIFORNIA

General Offices: Los Angeles, California

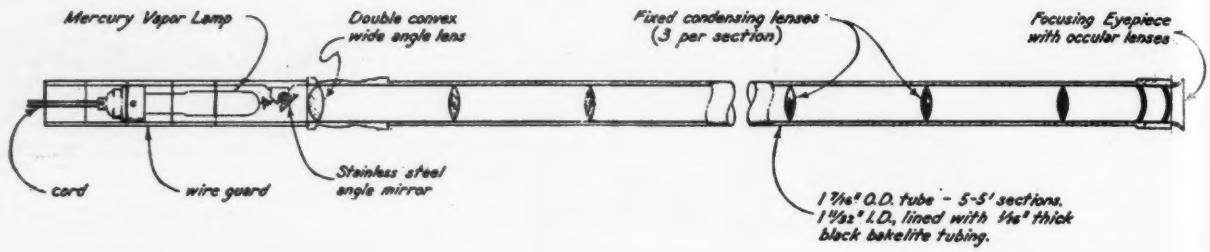
Gulf Coast Division: Houston, Texas

Eastern Division: Toledo, Ohio

Representatives In Principal Oil Fields and Refining Centers

PETRECO

DEHYDRATING DE-SALTING


Mercury Vapor Lamp
Double convex wide angle lens
Fixed condensing lenses (3 per section)
Focusing Eyepiece with occular lenses
cord
wire guard
Stainless steel angle mirror
1 7/16" O.D. tube - 5-5' sections. 1 1/32" I.D., lined with 1/16" thick black bakelite tubing.

of cases, the first intimation that a failure is going to occur comes after the failure has happened.

In the past, the decision as to when a string of pipe should be retired from drilling service and converted into line pipe was reached when a number of failures had occurred in the string and when it was felt that the string had been used sufficiently to have served its normal life.

Having had no means of segregating the good joints remaining in the string from the ones which were liable to cause early failure, the entire string was usually retired at the same time.

It is quite evident that this is not economical practice but until some practical method was developed to segregate the good pipe from the defective, there was no safe alternative. This was the situation which prompted the development of the Tuboscope, an instrument for the careful and minute inspection of the inside surface of a length of drill pipe. With this instrument, it is possible to inspect the internal surface of a 50 foot length (by inspecting 25 feet from each end) thus making it possible to inspect drill pipe in doubles.

Description of Tuboscope

Figure 4 is a sectional drawing of the Tuboscope showing the general arrangement of the tube, lenses, light, etc. which enable the operator to have a close hand view of the pipe wall as much as 25 feet inside the pipe.

In effect, the Tuboscope is a "telescope" with a double convex wide angle objective lense at the end adjacent to the object to be viewed, and a series of condensing lenses every 2 feet in the space between the objective lense and the focusing eye-piece with ocular lense. It is constructed of five 5-foot sections which may be used either singly or any multiple of the 5 lengths up to the full 25 feet in length. A 1000 watt mercury vapor lamp is attached to the end of the Tuboscope just beyond the objective lense in such manner that it lights the surrounding drill pipe wall and enables the operator to make a close inspection of the entire circumference of the pipe for a length of approximately 9 inches without moving the instrument. In operation, the inspector keeps his eye against the eyepiece and walks slowly toward the end of the pipe, pushing the Tuboscope ahead of him into the pipe and inspecting the entire inner, surface as the instrument progresses into the pipe. A set of spring centralizers keeps the instrument in the center of the pipe and a framework similar to an overhead tramway supports the instrument when too great a length overhangs the end of the pipe. Sometimes an assistant takes the place of the tramway. To enable the operator to look at right angles to the pipe axis down into a pit or defect in the pipe wall, a mirror is centered on the axis of the pipe just beyond the objective lense and tilted at an angle of 45°. This acts as a "periscope" and gives the operator a close view directly at the spot. A small depth gauge which is so arranged that it will readily drop into and be drawn from a pit in the wall, permits the operator to actually measure the depth of the pit or other defect.

Photographs may be taken by attaching a special camera to the focusing eye piece after the Tuboscope is focused on the spot to be photographed. Timing of the shutter depends upon length of Tuboscope, capacity of lamp and I.D. of pipe. These photographs furnish a permanent record of the pipe condition and progress of any condition may be followed by taking a series of photographs for comparison. This furnishes valuable experimental data for study where different methods are being tried to reduce or eliminate certain causes of drill pipe failure.

Preparing Pipe for Inspection

In order that the drill pipe to be inspected is in condition so that all defects may be readily observed, the pipe is thoroughly cleaned by a wire brush which is pushed through the drill pipe on the end of a piece of ½ inch pipe. The brush is rotated by an electric motor-driven hand drill which is attached to the end of the ½ inch pipe and held by a helper who pushes the brush through the joint of drill pipe being cleaned. Air is forced through the ½ inch pipe by a small air compressor which is connected to the end of the ½ inch pipe by a hose and a swivel connection. This air is released just behind the rotating brush and aids in completely cleaning the drill pipe wall.

After removing the brush, air is again blown into the drill pipe to discharge any loosened material.

Defects to be Looked for

The commonest defects to be looked for when inspecting drill pipe are:

1: Corrosion pits. 2: Pits caused by the rolling of foreign material into the pipe wall during fabrication at the pipe mill. 3: Laps, seams, folds, etc., caused during fabrication. 4: Fatigue cracks, usually found in the bottom of pits. 5: The butting of joints in a collar. 6: Fluid washing or cutting, usually caused by some obstruction which created eddies in the fluid stream.

It is readily realized that much valuable information can be obtained regarding the condition of a string of drill pipe by careful inspection of the inside surface similar to the external inspection that is usually made.

Probable costly failures may be avoided by removing questionable joints from the string before failure. Also joints in good condition may be kept in service instead of being retired to line pipe class along with defective joints.

Conditions or circumstances which lead to or promote failure may be detected, and many of these will probably be eliminated by changes in manufacturing or operating practices. All of which will tend to promote economies in the drilling of oil wells which will in turn react to the advantage of the user as well as the producer of petroleum products.

Acknowledgement

It is desired to acknowledge the able assistance of Mr. Tedford and Mr. Whittaker of Dia-Loy, Mr. Irvin of Magnetest and Mr. Lance of Tuboscope, in the preparation of this paper.

Loma Grande Drills East Pleyto Project

Loma Grande Oil Co. resumed operations with the return of good weather and is drilling and spot coring below 3025 ft. in Corey No. 1, according to Burke Phillips. Formation is reported to be Monterey brown shale with occasional oil and gas shows. Located in sec. 23,24-10, in the East Pleyto area, the Loma Grande well is the only active project in Monterey county.

Western Metal Congress Petroleum Topics

In Los Angeles May 19-23

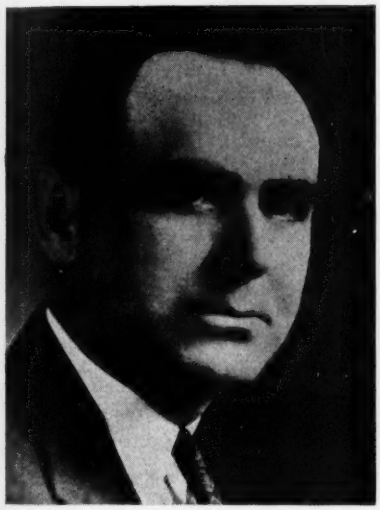
Men prominently identified with production of oil tools and equipment are taking an active part in arranging the Western Metal Congress, to be held May 19-23 in Biltmore hotel and Pan-Pacific Auditorium, Los Angeles.

A. G. Zima, western representative of the International Nickel Co., is general chairman, with a committee of 12 to assist him. He announced that the Congress, which will be held on the Pacific Coast for the fourth time, will hear papers on new alloys and heat treatments presented by virtually all the officers, directors and many other top notch metallurgists of the American Society for Metals.

In addition, he said, the American Welding Society will hold its regional conference on the first four days of the Congress, and the American Foundrymen's Association will hold technical sessions on the last two days.

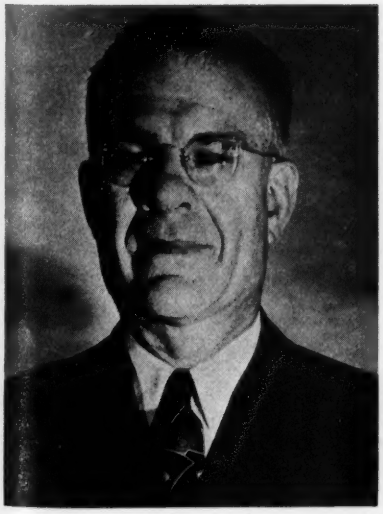
B. H. Brown, metallurgist of Bethlehem Steel Co., who is general vice-chairman of the Congress, stated the meetings will be keyed to national defense.

Because war conditions have curtailed importation of many metals, he declared the metallurgists have evolved national defense alloys based on metals available in the western hemisphere. These metals soon will be in general use, he said. Indications are they will be as satisfactory as or better than those which they replace.



A. G. Zima

B. H. Brown



C. E. Burt

John E. Wilson

An elaborate and comprehensive display of steels, testing apparatus and machinery will be given during the Congress in the auditorium. One of those largely responsible for this "metal show" is C. E. Burt, chief engineer of Baker Oil Tools, Inc., Los Angeles, who is vice-chairman of exhibits.

J. E. Wilson, metallurgist of Climax Molybdenum Co., chairman of registration, announces that members of certain technical societies, including American Petroleum Institute, California Oil and Gas Association, Liquefied Petroleum Gas Association and many others will be registered without cost for all sessions of the Congress and the exposition, on presentation of their membership cards.

Co-operation of these technical societies and seventeen others has been arranged by a committee headed by P. D. McElfish, of Standard Oil Co., of California. Mr. McElfish is chairman of the cooperating committee of technical societies.

Announcements of the Congress will be broadcast throughout Southern California by a committee headed by H. R. Abey, district manager of Leeds and Northrup Co., who is attendance chairman. Mr. Abey forecasts an attendance of 50,000 at the exposition, basing the prediction on the fact that 36,760 attended in 1938 when the show last was given here.

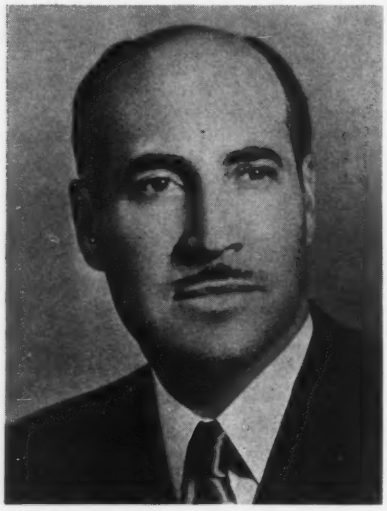
W. H. Eisenman, secretary of the American Society for Metals, said petroleum engineers will obtain much technical information.

"With many new alloys soon to be sprung on industry," he said, "It will be advantageous for the petroleum operator to know qualities and uses, as well as to be able to recognize and test these metals when occasion requires."

Four of the society's trustees also will speak. They are James P. Gill, chief metallurgist, Vanadium Alloys Steel Co., Latrobe, Pa.; M. A. Grossman, chief metallurgist, Chicago district, Carnegie Illinois Steel Corp.; H. J. French, in charge of alloy development, International Nickel Co., New York, and E. L. Bartholomew, metallurgist, United Shoe Machinery Corp., Beverly, Mass.

Numerous technical talks are on the society's program. A. W. Winston, metallurgist of Dow Chemical Co., Bay City, Mich., is preparing two lectures on

magnesium alloys; Ray Bowden, manager, metallurgical division, Carnegie-Illinois Steel Corp., Chicago, will speak on



P. D. McElfish

H. R. Abey

"The Role of the Metallurgist in the Production and Use of Alloy Steels."

Four lectures on stainless steel will be delivered by Dr. V. N. Krivobok, director of structural research, Lockheed Aircraft Corp., Burbank, Calif.; "Design of Metals" will be discussed by H. W. McQuaid, chief metallurgist, Republic Steel Corp., Cleveland.

The American Welding Society program tentatively has been announced as follows:

May 19: Dr. G. V. Slottman, Air Reduction Sales Co., New York, "Flame Machining:" H. C. Bell, Linde Air Products Co., Los Angeles, "Union-melt Process in Ship Building;" L. W. Delhi, Western Pipe and Steel Co., San Francisco, "All Welded Ships."

May 20: F. C. Fantz, Midwest Piping and Engineering Co., St. Louis, "Welded Pressure, High-Temperature Steam Piping;" F. A. Hurcomb, Taylor-Winfield Co., Warren, Ohio, "Resistance Welding."

May 21: T. B. Jefferson, editor, "Welding Engineer," Chicago, "Training of Welding Operators;" John Tinnon, vice-president Metal-Thermit Co., New York, "Electrode Coatings and Their Uses;" Turner Smith, General Petroleum Corp., Los Angeles, "Codes and Specifications."

Speakers for "Foundry Day," May 23, programmed by American Foundrymen's Association, include Dr. C. H. Lorig, Battelle Memorial Institute, Columbus, subject unannounced; E. K. Smith, Electro Metallurgical Corp., Detroit, "Heat and Wear Resistant Cast Iron;" V. A. Crosby, Climax Molybdenum Co., Detroit, "Plain and Alloyed Cast Iron." Several other foundry speakers will be announced soon.

Petroleum Forum Position Defined

By H. B. Duchand
President, The Petroleum Forum

First, I wish to say on behalf of your officers that we are conscious of the high compliment you have paid us. We shall serve you with such ability as we have.

There are enough oil organizations in California to accomplish every aim of the industry, and each is staffed by able men. Their purposes are—must be—similar — at least in the broader sense of the word. I say "must be" because no group of industrial units can be more closely wedded. Our product is the same. It goes to the same market through the same channels. The price of the weakest is the price for all. We are the common target of political sharpshooters and of every tax that a host of politician-economists can devise. The latter situation is perennial. It lasts through Republican as well as Democratic administrations. There is, of course, a reason for it. The industry lacks public favor. That old arrogance, particularly with the press—which retaliated—has bequeathed to the industry a lack of internal cohesion and lack of public confidence which makes it a natural butt for the demagog.

Political pressure is not being relaxed. Behind the phrases "national emergency" and "national resources" we must expect many unwelcome events.

Meanwhile, differences between the several organizations, not so much about objects as about methods, do much to cancel the effect of their respective efforts. A great deal of personal bias persists and holds apart some of our biggest figures, — men who should be working shoulder to shoulder, now, if never before.

In the Forum we are taking a fresh start, free of old prejudices. Our membership should, I think, be made representative of every school of thought, of every faction, and every department of the oil business. We are organized to "cultivate harmony"—"to bring together men with the ability and desire."

Let us hear all sides of the various questions that agitate the industry; and, through a representative membership, provide the opportunity for each side to hear all other views. I suggest to you that few, if any, responsible men deliberately espouse a wrongful cause, or knowingly follow a course that violates good judgment. Each viewpoint is entitled to credit for utmost sincerity,—and if it differs from your own I suggest that you examine the circumstances under which you and the other fellow operate,—financial, physical, geographical and historical, including some personal history. Many old grudges, even against your own company, may have been earned. Anyway—Why perpetuate them? The industry has and will have problems important enough to transcend any personal feeling—And so far it hasn't handled them any too well. Bury just a few hatchets and it will do much better.

I believe that having heard, having presented the opposing views to such a broadly representative membership, we should there stop. We shall defeat our object the moment the Forum becomes a party to controversy. The search for enlightenment imparts it.

We have another opportunity that should, I think, be utilized. Our business is so departmentalized that most of us are or become specialists. This is particularly true in the larger companies. I suggest that our programs should include discussions of departmental problems and functions; not papers on fine technical points, but a general picture for a lay audience. Some geologists know nothing of refining, many accountants have never really seen an oil well. I remember my first introduction to a drill collar—and was I amazed.

Among economic and political subjects I suggest—just for instance—

That the public now obtains oil products at less than actual cost; that we are probably being deceived by the immediate low operating cost of flowing wells. Gasoline, ex-tax, is about as cheap as bottled water.

That there is a long history of public policy behind the percentage depletion

that it is now proposed to eliminate.

That this administration inherited from an earlier one its theories of unitized operation and conservation through imports.

That waste, so widely cussed, has seldom been defined; that the real waste may prove to be the premature abandonment of stripper wells and the discouragement of exploration.

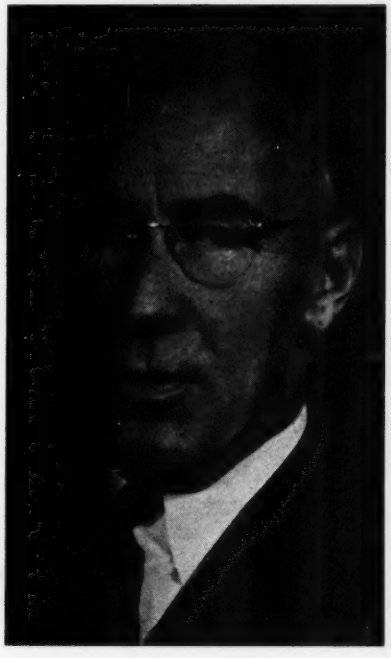
That nationalization of the oil industry is now openly upon the horizon, a trend that deserves universal attention.

The values to which this organization may aspire are limited only by our own qualities,—our breadth of concept, of understanding, and our capacity for cooperation. Let us be what our name implies—a Forum—committed only to an open mind.

Harmony, gentlemen, is the fruit of Tolerance.

Low Made Head of Roebling Sales

Ernest C. Low, who on January 1, 1941, was elected president and general manager of the John A. Roebling's Sons Co. of California, has been elevated to



Ernest C. Low

the position of general manager of sales of the John A. Roebling's Sons Co., with headquarters at Trenton, N. J.

Mr. Low has been associated with the Roebling company for 32 years. In 1909 he joined the California division of the company at Los Angeles, serving in various sales capacities. Early in 1930 he was appointed manager of the San Francisco branch, and at the beginning of last year he became the head of the California division.

Willard G. Marks, until recently manager of the Los Angeles Branch of John A. Roebling's Sons Co. of California, has been appointed president and general manager of the Pacific Coast Organization, with headquarters in San Francisco. Mr. Marks succeeds E. C. Low.

It was in 1907 that Mr. Marks joined the Roebling company and he has established an enviable record with the company, both in the sales and executive

Willard G. Marks

Raymond C. Groesbeck

field. Aside from being a recognized authority in the mining industry, having served the firm's interests in Mexico, Arizona and New Mexico for many years, he is also a familiar figure in the oil pr ducing area surrounding Los Angeles.

Raymond C. (Pat) Groesbeck succee Mr. Marks as Manager of the Los A geles Branch. Mr. Groesbeck was for erly with the United States Steel Corp ration, later representing the Americ Chain and Cable Co. It was from th firm that he came to the Roebling co pany, serving their interests in the A zona territory until his present appoin ment.

H. Boezinger Elected Merco-Nordstrom V. P.

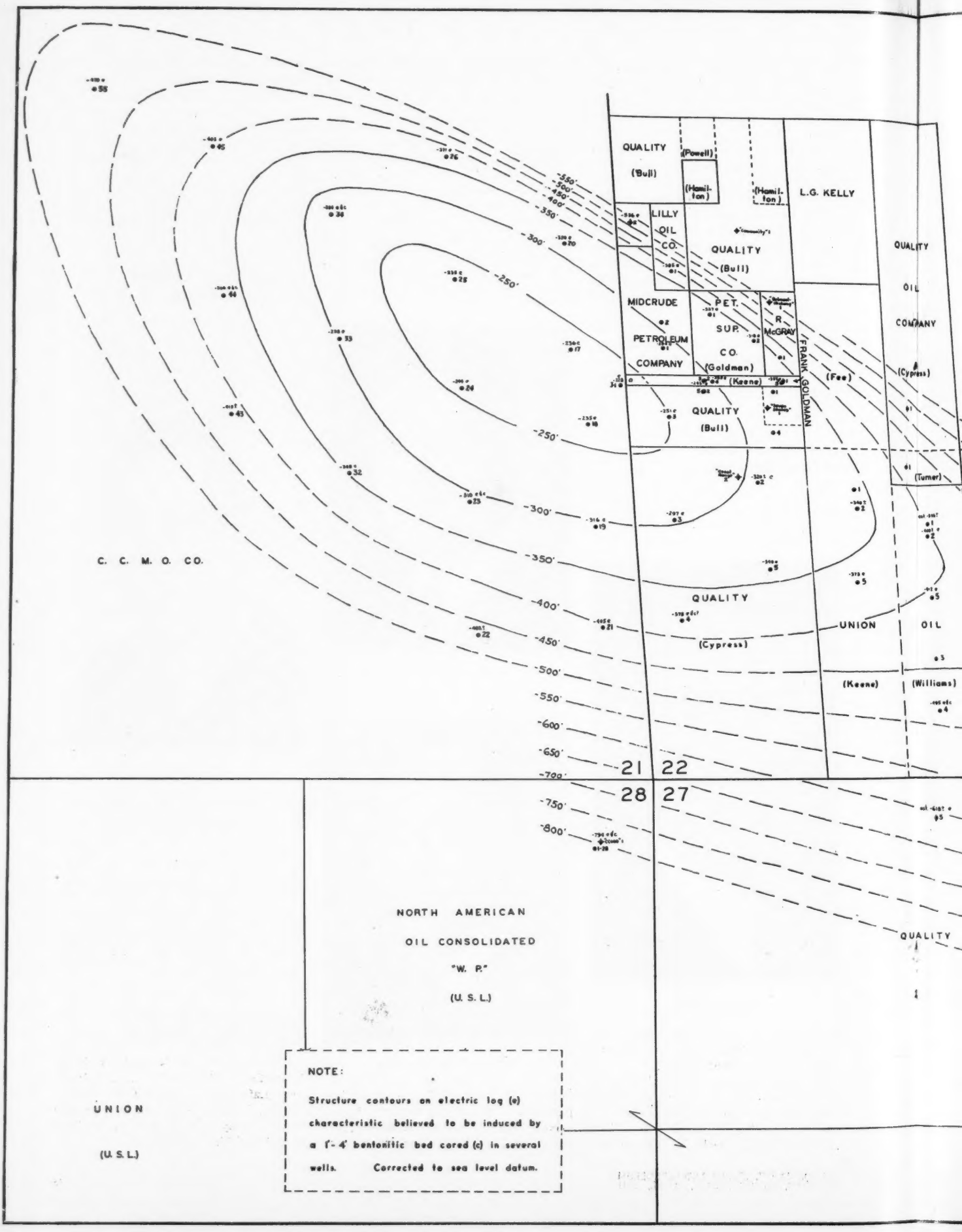
H. Boezinger, for years district ma ager in Los Angeles of the Pittsburg Equitable Meter Co. of Pittsburgh, Pa and the Merco Nordstrom Valve Co. Oakland, Calif., has been elected a vic

H. Boezinger

president of Merco Nordstrom Valve Co. Mr. Boezinger is a graduate of Stanford University. Prior to his affiliation with Merco Nordstrom Valve Co., Mr. Boezinger was engaged in petroleum engineering in both the San Joaquin Valley and Southern California. He has been associated with the Merco Nordstrom Valve Co. since its early development and expansion in the oil industry. Mr. Boezinger's additional activities will cover the entire west coast.

Lafayette Oil Spuds Contra Costa Project

Lafayette Oil Co. is spudding in its interesting wildcat well in sec. 28,1n-2w near Lafayette in Contra Costa county. Drilling is being done with heavy rotary equipment by contractor H. L. Whiston of Bakersfield.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MIDCRUDE
PETROLEUM
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(Goldman)
R McGRAY
FRANK GOLDMAN
(Fee)
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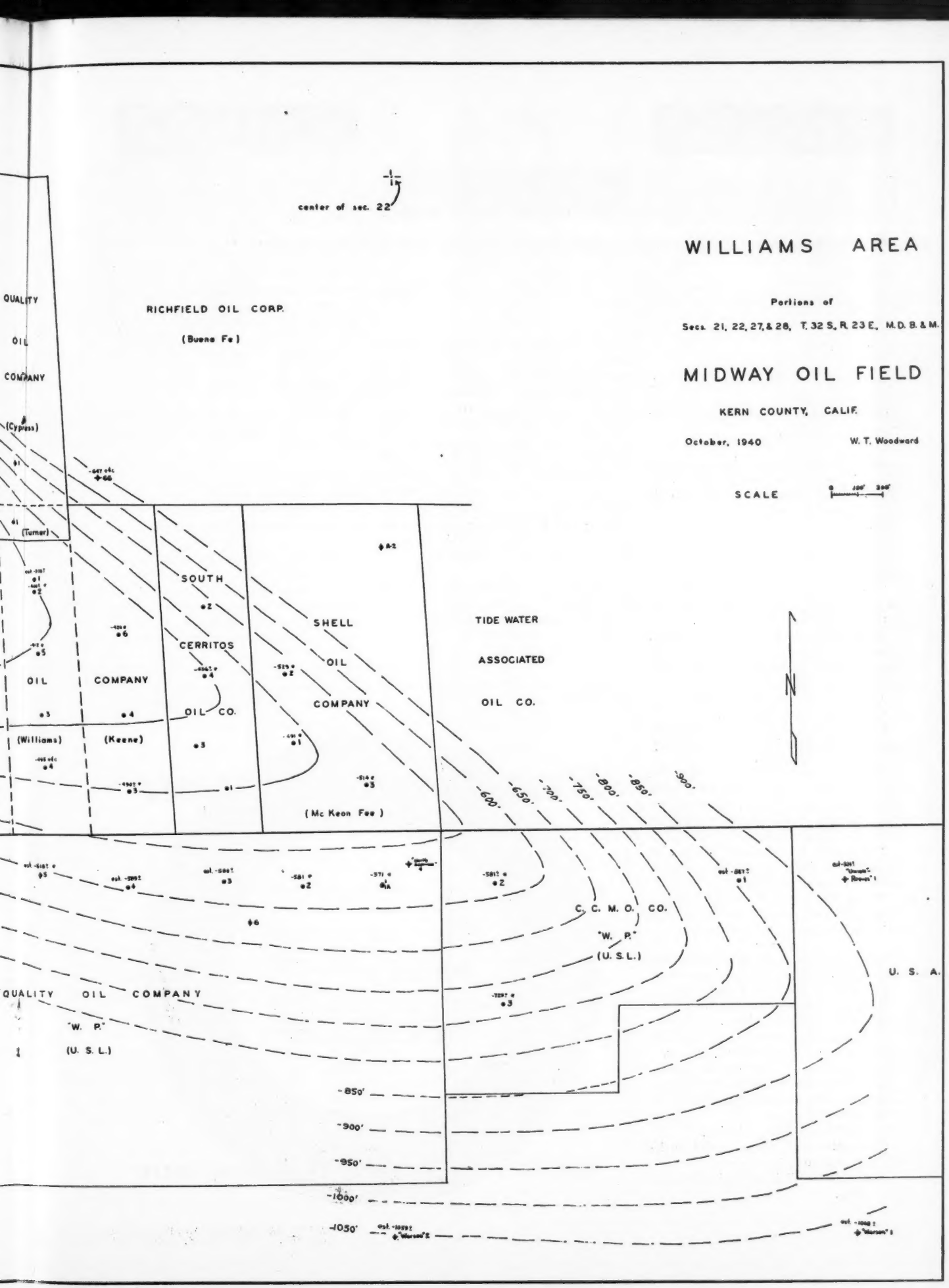
NOTE:
Structure contours on electric log (e) characteristic believed to be induced by a 1'-4' bentonitic bed cored (c) in several wells. Corrected to sea level datum.


center of sec. 22
WILLIAMS AREA
Portions of
Secs. 21, 22, 27, & 28, T. 32 S., R. 23 E., M.D. B. & M.
MIDWAY OIL FIELD
KERN COUNTY, CALIF.
October, 1940
W. T. Woodward
SCALE
RICHFIELD OIL CORP.
(Buena Fe)
QUALITY OIL COMPANY
(Cypress)
(Turner)
SOUTH CERRITOS OIL CO.
SHELL OIL COMPANY
(Mc Keon Fee)
TIDE WATER ASSOCIATED OIL CO.
OIL COMPANY
(Williams)
(Keene)
C. C. M. O. CO.
"W. P."
(U. S. L.)
U. S. A.
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"W. P."
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THIS LAUGH OFF!!

Glenn Merkley tell this one:

Old Mammy: "I want a ticket fo' Euphonia."

Agent (After 10 minutes of searching over railroad guides): "Where the deuce is Euphonia?"

Old Mammy: "Settin' over dere on dat bench."

Then, for no reason whatever, we are reminded of the fan dancer's husband who came home and found one of her fans under the bed.

And Ike, the roustie, says he's sorry for that poor midget that got chased out of the nudist camp because he was always getting his nose in other people's business.

Sinister is the story **Earl Robishaw** tells:

The guest was being shown to his bed in the haunted room by his host's faithful, but rather saturnine, retainer.

At the door of the room they paused.

"B-b-by the way," asked the guest, "has anything, er, unusual ever happened in connection with this room."

"Not for over fifty years, sir."

"And what happened then?"

"A gentleman who spent the night here appeared at breakfast the next morning."

Then **Guy Edwards** tells us about the hotel manager who was passing down the hallway one morning, when he saw the shine boy kneeling at one of the bed room doors cleaning a pair of shoes.

"What are you doing?" he asked. "Take them down to the basement at once and clean them there."

"Cain't do it, boss," the boy replied, "they's a Scotch gen'man inside the room an' he's hanging on to the laces"

From somewhere, **Perry Kilsby** culled this collection of Freshman definitions:

Chlorine—A dancer in a night club.

Copper—A man who guards fire escapes at the girls' dormitory.

Antimony—Fee collected by ex-wives smart enough to leave their husbands.

Carbon—Storage place for street cars.

Barium—What you do to dead people.

Boron—a feeble-minded person

Catalyst—A cowboy.

Horse Sense—Stable thinking.

Flask—Measuring vessel carried on the hip and graduated in fingers.

Electrolyte—A lighting device invented by Edison.

"I keep thinking that today is Saturday."

"Well, it is."

"I know, that's why I keep thinking it is."

Oh, yes, then there's **Charley Chandler's** story of the aged multi-millionaire who invited his sons, daughters, and in-laws for a Thanksgiving dinner:

"Children," he said, "I'm getting along in years and as yet none of you has presented me with a grandchild. A grandchild would comfort me in my old age and so I've decided to give a million dollars to the first of you who presents me with one."

With that he bowed his head to say grace. Upon looking up again he found that the table has been deserted.

Salesman: "I sell underthings to nudist colonies."

Farmer's daughter: "What kind of underthings do nudists need."

Salesman: "Cushions."

And this one has been attributed to **Jim Kelley:**

A young officer returning from leave abroad was about to take his place in an air-liner when a girl ran up and asked the passengers if any one of them would be kind enough to sell her his seat as her mother was dangerously ill and the liner was full up.

The young officer gave up his seat and wired his C. O.:

"Given berth to girl. Returning by next plane."

The reply he received ran: "Congratulations. Your next confinement will be in barracks."

"There's a poor man outside who wants something to eat."

"Give him some bread and potatoes."

"But he looks as if he had seen better days."

"All right, give him a napkin, too."

Then there was the grain of wheat, who woke up one afternoon, and finding herself in a loaf of bread, exclaimed, "Heavens, I've been reaped!"

Names used on this page are entirely fictitious, and any resemblance to persons either living or dead is purely coincidental.

WEIGHT INDICATOR POINTS
Charts obtained with Rate of Penetration Recorders clearly show the need for accurate drilling control instruments.
Penetration speeds vary greatly with changes in weight and in rotating speed. In fact, many times there may be a critical point in weight increase beyond which high penetration rate means crooked hole!
To a great extent, these close weight and speed measurements determine whether cost-per-foot is high . . . or low. The Martin-Decker "Sealtite" is the outstanding instrument for obtaining these important measurements accurately.
MARTIN-DECKER CORP., LONG BEACH, CALIF.

Field Development

Los Angeles Basin

Athens Outpost Rigging Pump

Disappointing were the results of Southern California Petroleum Corp.'s first tests in Howard Townsite No. 1 at the corner of 122nd St. and Vermont Ave. The well failed to show much kick after 48 hours swabbing and it is now being rigged to pump. Mechanical details are still lacking in this, one of the toughest hold-out wells in many months, but it is believed the hole is bottomed at 8375 ft. and plugged to 8115 ft. where casing is landed. Perforations are thought to be open in two intervals below 7960 ft.

Union Oil Co.'s 9618 ft. deep test at the southeast corner of Rosecrans Blvd. and Figueroa St. is pumping 85 bbls. of 28 gravity oil cutting 60.0%.

Havenstrite Coring Two Del Valle Wells

R. E. Havenstrite, Operator, is coring his two critical wells in the Del Valle field. Vasquez No. 1, southeasterly outpost, at 7100 ft. appeared about 100 ft. above the Third zone according to foraminifera studies. The first two sand horizons were barren but evidences of oil are increasing with depth, giving reason to believe the lower zone will be good. Lincoln No. 3, located between the Vasquez well and production, found nothing but gray sand to 6675 ft. but was running about 200 ft. higher on structure than its neighbor.

Royalty Service Stakes New Long Beach Location

Royalty Service Corp. has the foundation corners staked out for Burgess No. 1, a new north edge test of the Long Beach-Signal Hill field south and east of the intersection of Orange Ave. and 32nd St. This location is about half a mile southeast of I. C. No. 1 which the company completed a few weeks ago at 6300 ft.

Shell Oil Co., Inc. finished Alamitos No. 45 at 4890 ft. on Reservoir Hill pumping 210 bbls. cutting 10.0%. Alamitos No. 46 is drilling at 3500 ft. and location is being prepared for Cresson Community No. 16. The latter well will be situated north of Willow St. and west of Gundry Ave.

Richfield Oil Corp. is re-completing Bixby No. 4 in the northwest extension after deepening to 5520 and plugging to 5475 ft. Connett No. 3, on the easterly slope of Reservoir Hill, is drilling at 1000 ft.

LOS ANGELES BASIN WILDCATS

Area	Well	No.	Section	Depth	Status
Athens	Rankin & Williams	1	7, 3-13	9098	Fish drill pipe
	Barnsdall Oil Co., Honor Rho A-17-1		5, 4-16	1593	Drilling
Castaic	Colter, R. T., Exlpor.	1	8, 4-17	1350	Cleaning out
	Hathaway Co., Ram	1	31, 5-17	2133	Drilling
	Jasper, Fred S.	1	17, 4-17	150	Drilling
	Morse-Mangold, Inc., McDermott	1	26, 5-17	305	Drilling
	Western Gulf Oil Co., Lechler	2	31, 5-17		Rigging up
	Worland Oil Co., Jenkins-Owens	1	18, 5-16	2940	Idle
Dominguez, West	Hiles Drilling Co., Grant	1	29, 3-13	7660	Redrilling
Malibu	Sovereign Oil Corp., Malibu	1	7, 2-18	5370	Drilling
Newhall	Aztec Oil Co., Sanborn	1	6, 3-16	450	Idle acct. rains
	Purman, Thos. H. T., Needham	1	13, 3-16		Grade
	So. Calif. Drlg. Co., Needham	4	13, 3-16	4398	Idle
	The Texas Co.	1	14, 3-16		Grading
Redondo	Cherokee Oil Co.	1	32, 3-14		Grade
	Pettijohn, J.E., Dominguez Estates	1	5, 4-14		Grade
	Orange County				
Costa Mesa	Thompson, Milton N., Banning	1	9, 6-10	5649	Idle
Kraemer	Valley Petroleum Co., Kraemer	1	25, 3-9	1300	Drilling
Olive	Tide Water Assoc. Oil Co., Olive-Orange	1	19, 4-9	2794	Drilling
	San Bernardino County				
Carbon Canyon	May, Homer, Oasis	1	31, 2-8		Rig
Chino	Prado Oil Corp., Lamp	1	31, 2-7		Rig

NORTHERN COUNTIES WILDCATS

County	Well	No.	Section	Depth	Status
Contra Costa	Lafayette Oil Co., Morris	1	28, 1n-2w		Prep. to spud.
Humboldt	Daly, M. B., Jr.	1	2, 1n-2e	900	Idle
Merced	Don Pedro Oil Co.	1	9, 6s-9e	1906	Idle
Mendocino	Keyt, N. F.	1	3, 12n-17w	516	Drilling
Monterey	Loma Grande Oil Co., Corey	1	23, 24s-10e	2880	Idle
	Priest Valley Pet. Co., Greve	1	22, 20s-12e	2885	Idle
Rio Vista	Amerada Pet. Corp., J. F. Wilcox	1	31, 4n-3e	4112	Drilling
Sacramento	Harkness, Tracy	1	35, 8n-4e		Rig
San Joaquin	Standard Oil Co., Blewett	2	25, 3s-6e		Rig
San Mateo	Ra-Lite Petroleum, Inc., Bell	5	16, 7s-4w	1200	Idle
Yuba	Wright, L. G., Cox	1	18, 14n-5e	1795	Idle

Hilldon Oil Co.'s Pool No. 2, a northwest well, is reported flowing 80 bbls. a day by heads after gun perforating casing cemented on bottom at 5520 ft.

Redrilling and deepening activity is picking up about the field and it looks as though Signal Hill is due for a busy spring and summer.

Rapid Pace Maintained In Newhall-Castaic Area

A rapid development pace is being maintained by operators in the Newhall-Castaic area where six wildcat wells are drilling and two are preparing to spud in addition to the four strings of tools running in the Newhall-Potrero and Del Valle fields.

On the Los Angeles county honor prison farm, Barnsdall Oil Co. is down about 2000 ft. in No. A-17-1 in the southwest corner of sec. 5,4-16. The well is located a mile north of the highway bridge over the Santa Clara River and is outside the prison farm fence.

North and west of Barnsdall's exploratory hole, Mangold & Morse Oil Co. is drilling ahead in McDermott No. 1, sec. 26,5-17, after cementing surface casing at 300 ft. Both seek production in the Modelo sands.

In an effort to find production similar to Del Valle, Fred S. Jasper is drilling Videgain No. 1 a mile west of the Haverstrite wells. When last reported, bottom was still above 1000 ft.

Hathaway Co.'s Ram No. 1, sec. 31,5-17, is coring for the Modelo oil sands from which Western Gulf Oil Co.'s Lechler No. 1 is producing 35 bbls. of 23 gravity oil per day. The Ram well, virtually an offset to the discovery hole, appears to be lower structurally. Western Gulf is ready to spud its second well on the Lechler property. Results of these two wells should prove whether or not Oak Canyon is really a field.

Newhall-Potrero Oil Co. is preparing to resume drilling at 8520 ft. after washed out roads necessitated a temporary shutdown. Present plans are to deepen to 9000 ft. in search of the sands from which Barnsdall Oil Co. is producing a short distance to the west. Bad road conditions held up Aztec Oil Co.'s Sanborn No. 1 by making it impossible to haul in surface casing which was to be set at 450 ft.

Delayed by the rains, The Texas Co. is completing the necessary grading for Whitnah No. 1 which will look for deep production in sec. 14,3-16 west of the old Newhall Tunnel Area field.

De Marsh Oil Drills West Wilmington Well

The combination of heavy rains and adobe soil has retarded development in the West Wilmington sector to the point where De Marsh Oil Co.'s Phillips No. 1 is the only driller. Los Angeles Basin Petroleum Co., however, has its Phillips No. 1 partly rigged up and Silver Petroleum Co. has the derrick built for its No. 2. Silver's No. 1 is currently pumping 100 bbls. a day while Acoma Oil Co.'s No. 1 makes about 70 bbls. daily.

Outposts Proposed For Torrance Field

Two outposts are proposed, which, if successful, will extend the Torrance field in opposite directions. Immediately north and east of the Santa Fe Railroad crossing over Main St., John F. Wilcox plans a semi-wildcat. Other wells in the vicinity have produced small amounts of heavy oil from the Ranger or Torrance Main zone and the Bren well, located to the south across Main St., is said to have found showings in the Ford or Del Amo zone. Mr. Wilcox formerly operated in the Coalinga area.

North of established production and near the Redondo end of the large Torrance field, Cherokee Oil Co. has dug

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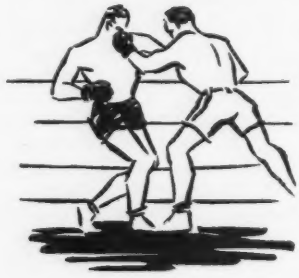

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a cellar for an extension well near Speyers Lane and 190th St. A completion will be sought in the 4000 ft. sands.

At the edge of the frog pond called Machado Lake, north of State St. and East of Vermont Ave., J. E. O'Donnell is drilling his No. 74 with the Del Amo zone as its objective.

Standard Completes Deep Coyote Pumper

Deepening Coyote No. 2-10 to 7030 ft., Standard Oil Co. obtained an initial rate of 420 bbls. a day of 21 gravity oil cutting 25.0%. A 6⅝ in. combination string was landed on bottom and cemented through perforations at 5725 ft. leaving 1300 ft. of formation open to production. In the same westerly section of East Coyote, Bartholomae Oil Corp. is deepening Stern No. 5 near the 6000 ft. level.

On the north flank, California National Oil Co. finished its No. 1 well with 250 ft. open to redrilled bottom at 3400 ft. pumping water with only a trace of oil. Carlton B. Wood's Basten No. 1, located in the Carolina St. area, is pumping about 50 bbls. of oil daily from 50 ft. of Lemke zone open to 4236 ft. Water content is reported at 50.0%.

Chas. W. Camp, Long Beach operator, is planning to drill soon on the Tuffree property in the central portion of the field.

Deep Dominguez Dope Deemed Dismal

Present dope on Union Oil Co.'s Dominguez deep test, Callender No. 79, indicates the whole thing to be rather a dismal failure. Drilled to basement schist at 12,720 ft., the hole was plugged to 10,314 ft. where a 5½ in. combination string was landed and cemented through perforations at 10,010 ft. Swabbed to 9375 ft., fluid entered at the rate of 60 bbls. daily but was nearly all water. The plug was then cleaned out to 12,464 ft. and 2489 ft. of 4 in. liner including 1119 ft. perforated was run and cemented through perforations at 11,335 ft. During the latter operation, the tubing was cemented in place causing the loss of the lower portion of the hole. At present, the 5½ in. casing is being pulled and it is probable that the well will be tested in the Seventh and Eighth Callender zones.

Northwest of proved limits, Hiles Drilling Co. plugged the old Pongratz well on the Grant property and redrilled directionally to the southeast in an attempt to find production in the Seventh Callender zone but at 7200 ft. the outlook was not encouraging.

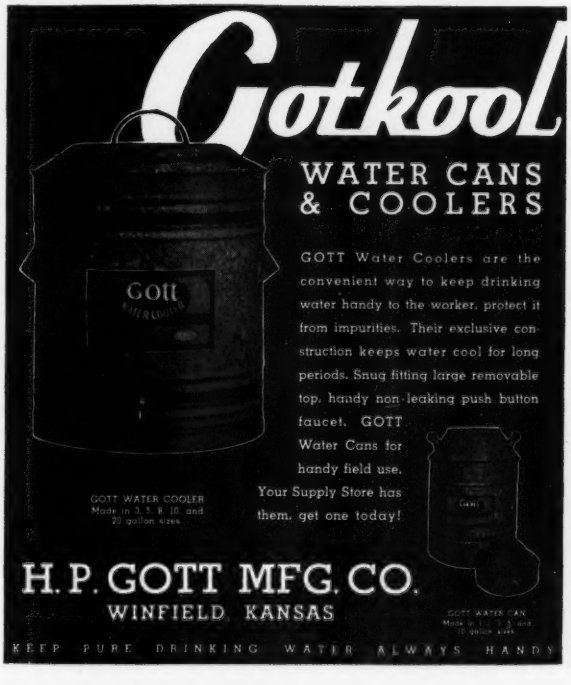
In the old section of the field, Shell Oil Co. completed Reyes No. 112 at 7490 ft. as a small gasser. Union Oil Co. is drilling Callender No. 83 and Carson No. 16, both in the westerly area.

Morton Interests Plan New Huntington Project

With preparations being made to complete well No. 2 on the old Tide Water Associated Oil Co. Fowler property, the Harold C. Morton interests are already starting work on a new well on the old T.W.A. Pearce lease on Ellis Ave. The second Fowler lease well is gun-perforating 6⅝ in. casing cemented on bottom at 4842 ft. preparatory to completing on the pump.

Signal Oil & Gas Co. has just finished Bolsa No. 23 with bottom plugged from 3665 ft. to 3475 ft. with production yet unestimated. The company's last completions were No. 2 for 150 bbls. and No. 23-A for 300 bbls.

Southwest Exploration Co. is drilling State No. 38 after bringing in No. 37 at a 450 bbl. rate.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San Joaquin Valley

Wildcat Planned For Raisin City District

Fifteen miles southwest of Fresno in the Raisin City area of Fresno county, Shell Oil Co. has poured foundations for Properties Inc. No. 8-18. Located in sec. 18,15-18, the test will be the second wildcat active in Fresno county.

The other active well is The Texas Co.'s S.P. No. 27-13 in sec. 13,17-15 of the Cantua Creek area. Drilled to 9673 ft. and with a formation test at 9605 ft. showing only thin mud and a trace of gas, the well was plugged to 9380 ft. A short liner was landed at 9373 ft. and cemented through perforations at 9325 ft. for tests of what are reported as the best showings encountered. At last report the well was standing re-squeezed after the second cement job proved wet.

Located a half mile northwest of the company's S.P. No. 1 which flowed a small amount of condensate, salt water and gas from 9413 ft., the current try is something of a no-dope well with the operators withholding all geological and test information.

However due to the fact that the company is still leasing in the vicinity of the play and the fact that 14 prior trys in the area have each shown something of interest, it is probable that the company expects more than the poor showings in the lower section of the hole.

It could be that the try has found the productive closure so long sought in the sands known to exist in the area.

Kern Valley in Edison Wildcat

Kern Valley Drilling Co.'s Williams No. 1, a mile and a half southeast of Edison production in sec. 30,30-30, has resumed work. Last reported at 675 ft. in sandy shale showing traces of gas, the well is being drilled on contract by the Mack Drilling Co.

Most easterly of all wells drilling in the San Joaquin Valley, the current effort is near the point where sharply rising beds have brought the granitic basement near the surface. Only a little more than a mile to the east R & R Development Co.'s well No. 1 found granite at 1100 ft.

McClung Test Getting Deep

Union Oil Co.'s KCL No. 31-3, a Vedder try in sec. 3,30-26, is reported in hard brown shale at 9560 ft. Drilled on a trend drawn southeasterly from the axis of the Rio Bravo and Greeley fields, this is the latest of many to seek a productive high on the structure. Previous drilling has established the presence of the objective sand bodies, having found them barren near the 11,125 ft. mark.

The Stevens zone equivalent was thought found when streaks of gray sand were passed at 8350 ft. Superior Oil Co.'s KCL No. 9 in the same section found momentary production in the Stevens in 1937. This well flowed 33 gravity oil for a few hours before mud broke in and killed the flow, with subsequent efforts to regain the production unavailing.

On the northeast flank of the repeatedly drilled play, Ohio Oil Co.'s KCL No. G-1 in sec. 36,29-26 is reported at 1000 ft.

Hard Luck Dogs Shafter Deep Try

Continental Oil Co.'s KCL No. C-2 in sec. 35,27-24, latest of a series of deep tests along a southeasterly trend from the Wasco oil field, is having the dubious distinction of being a hard luck hole.

After once having reached 11,349 ft. in an area where test wells range about the 13,000 ft. level, the drill pipe twisted off requiring a redrill and the cementing of a 9⅝ in. protective string at 9770 ft. With the resumption of redrilling and the setting of many whipstocks, the hol was again junked by a stuck drill string near 11,000 ft. A cavity was shot in the wall of the hole below the shoe of the protective string, and the hole filled with cement to 9550 ft. Cleaned out to 9825 ft., a whipstock is being set over the heavy cement plug in an attempt to kick through the cement lined wall of the hole and away for trouble free drilling.

Slight oil showings were found in the Vedder during previous drilling but did not show promise of the substantial production thought possible in the area by qualified observers.

Wood-Callahan Finish Mystery Edison Pumper

Wood-Callahan have finished Heyden No. 2 in sec. 21,30-29 in the Edison pool for an undisclosed pumped rate from 3645 ft. Located in the small pool southwest of the Edison field proper, estimates of the concealed production range from 100 to 400 bbls. according to the wish of the guesser. Little doubt can be felt however that the well is commercial since Wood-Callahan has consistently drilled in the area and is now preparing to drill on the Magoffin lease in the northeast corner of the southeast quarter of section 21.

Also planning a shot at the production is Kenneth Oil Prod. Co. having just spudded well No. 2 in the northeast quar-

SAN JOAQUIN VALLEY WILDCATS

Area	Well	No.	Section	Depth	Status
	Fresno County				
Cantua Creek	The Texas Co., S. P.	27–13	13, 17-15	9673	Testing
Raisin City	Shell Oil Co., Properties, Inc.	8–18	18, 15-18		Grade
	Kern County				
Belridge—South	Santa Mora Oil Co.	1	10, 28-20	544	Cleaning out
Buttonwillow	The Texas Co., S. I	47–15	15, 29-24	8157	Drilling
Devils Den	Herzog, R. D., Collins	1	26, 25-18	361	Running casing
	Herzog, R. D., Marie	1	26, 25-18	708	Idle
Edison	Crude Oils, Inc., S. I	7	31, 29-30	460	Idle
	Kern Valley Drlg. C..., Williams	1	30, 30-30	683	Drilling
Grapevine	Continental Oil Co., Tejon	A–1	28, 11-19		Rig
	Kern Line Oil Co.	1	19, 11-19	8390	Rigging up
Lost Hills	Tide Water Assoc. C Co., Isolis	46	16, 27-21		Location
Maricopa	Bankline Oil Co., We	24–24	24, 11-23	3104	Re-drilling
McClung	Ohio Oil Co., KCL	G–1	36, 29-26	1130	Drilling
	Union Oil Co., KCL	31–3	3, 30-26	9546	Drilling
Richgrove	Borget, A. J., Kendall	1	16, 25-27	1700	Drilling
	Shell Oil Co., Smith	77–11	11, 26-27	1916	Drilling
Shafter	Continental Oil Co., KCL	C–2	35, 27-24	11349	Redrilling
Union Avenue	Hancock Oil Co., Roberts	2	6, 30-28	5203	Suspended
	Kings County				
Kettleman So. Dome	Bristol Oil Co., Smith	1	35, 24-19	8054	Stdg plug.—1723
Pyramid Hills	Pyramid Prod. Co., Spreckles	2	16, 24-18		Rig
	Tide Water Assoc. Oil Co., West Slope	76	20, 24-18		Rig
Reef Ridge	Easterbrook, S. F.	1	11, 23-16		Location
	Tulare County				
Terra Bella	Arnold, V. F., T.B.I.D.	1	5, 23-28	260	Drilling

ter of the southeast quarter of section 21. Across the section line in sec. 22,30-29, Vendome Oil Co. plans an offset.

Monterey Exploration Co. finished Shell-Duff No. 15 in sec. 15,30-29 in the main body of the field pumping 70 bbls. of 15 gravity oil cutting 18%. Deepened from 1731 ft., where small wet production had been found, the hole was carried to the schist at 3518 ft. and plugged to the bottom of the present 60 ft. zone at 3320 ft.

East Valley Fields Feeling Revival

Presaging a continued interest in the production of fuel type oils, East Valley field operators are instigating a long range program of new edge well drilling and considering an intensive remedial program in the many hundreds of potential shallow producers now idle in the east side fields.

At the east flank of the Kern River field, Ray Frampton is cleaning out to continue with well No. 3, now bottomed at 430 ft. in sec. 27,28-28.

Stephens Oil Co.'s No. 2 is drilling at 300 ft. on section 34, while Rio Kern Oil Co. has built rig for well No. 2-A in the southwest corner of the northeast quarter of the southeast quarter of sec. 28,28-28.

In the Mount Poso area Shell Oil Co. finished Mathew Fee No. 8 on the west flank of a small pool of production in sec. 4,27-28 pumping 300 bbls. of 15 plus gravity oil cutting 49% water. Bottomed at 1780 ft., the well found the Vedder sand at 1650 ft. In sec. 9,27-28 Shell is finishing Vedder No. 33 from 1975 ft. after finding the sand at 1908 ft. First estimates place the production at 65 bbls. of fluid containing about one-fourth 14 plus gravity oil.

On the west flank of the main body of the Mount Poso field in the north half of sec. 16,27-28, Shell Oil Co. is under way with three projects on the Security lease. Security No. 24 is bailing after bottoming at 2005 ft. in Vedder oil sand found at 1932 ft. No. 25 is also attempting to complete with bottom at 2085 ft. in the Vedder found here at 2010 ft. Foundations are poured for No. 26 near the north quarter corner of the section.

In a small pool in the northeast corner of sec. 33,27-28 at the south tip of Mount Poso production, Vanguard Oil Co. is rigging up to drill Baker No. 12.

J. J. Tavis plans a test well east of the main control fault in sec. 4,27-28, a location lying between existing production yet which must be classified as a wildcat due to the complexities of the area.

Second major company to re-enter the area in search of additional heavy oil production is General Petroleum Corp. which plans to drill Heisen Nos. 6 and 35 in sec. 16,27-28.

At the west quarter corner of the southwest quarter of sec. 27,26-28, east of Dominion Pool production and near other isolated Vedder zone production, Da-Me Oil finished well No. 2 pumping 35 bbls. of 14.3 gravity oil still cutting water heavily. Operators are reported planning an immediate successor.

Union Oil Completes Good Rio Bravo Well

Latest completion in the prolific Rio Bravo field is Union Oil Co.'s Crites No. 52-28 located near the north quarter corner of sec. 28,28-25 as the most northwesterly producer in the field.

Finished from 11,488 ft. the well is producing from 217 ft. of formation after finding the top of the Rio Bravo sand at 11,271 ft. and the Vedder at 11,352 ft.

Still relatively high on structure the well flowed an initial rate of 3161 bbls. of 39.4 gravity clean oil through a 23/64 in. bean. Completed under 1600 lbs. pressure, the flow also brought 1,725,000 cu. ft. of gas.

With this well successfully finished, the field's northwesterly limits are yet to be defined, and it is recognized that such

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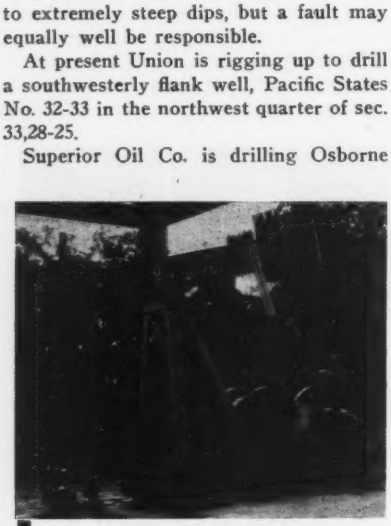
limits cannot be far removed since Superior Oil Co.'s Riggs No. 1, only 3000 ft. northwest of this well found the sands too low to produce after drilling to 12,324 ft. The Riggs well, in the southeast corner of sec. 21,28-25, was the first hole to move out from proved limits any appreciable distance, and thus first indicated a disturbance at the northwest end.

The extremely low position of the sands at the barren outpost is thought to be due to extremely steep dips, but a fault may equally well be responsible.

At present Union is rigging up to drill a southwesterly flank well, Pacific States No. 32-33 in the northwest quarter of sec. 33,28-25.

Superior Oil Co. is drilling Osborne No. 1-3 at 6500 ft. one location south of the recent completion, and has poured foundation for Curtis No. 2 near the south line of the section.

Superior also has two strings running in the south half of the field with Pasadena Realty Nos. 3 and 4 each below 8500 ft. in the northeast quarter of sec. 33,28-25.



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Trico Finishes Round Mt. Pumper

Trico Oil & Gas Co. has finished Coffee No. 6 in a small pool of Vedder production in the north half of sec. 8, 28-29 which it uncovered last year. Bottomed at 1388 ft. in Vedder sand found at 1336 ft., the well is reported to be making the 250 bbl. production proved usual in here. This accumulation is another of the fault traps which make east Valley development both a gamble and a headache. Crestmont Oil Co. had earlier proved an accumulation along the same fault farther southeast. Since the area is heavily faulted, many small pools have been discovered and it is the hope that more will be found which makes this area of great interest to many operators.

Activity Resumed In Grapevine Play

With a drilling rig again assured the Grapevine area, things are looking up for south Valley exploration. Probably first to again be turning to the right will be Kern Line Oil Co. which is rigging to resume deepening it's well No. 1 near the center of sec. 19,11-19. Bottomed at 8390 ft. when high winds razed it's wood rig, the try was deepening after tests at 8290 ft. produced only brackish water and a trace of gas.

Continental Oil Co. is building rig for Tejon No. A-1 near the east quarter corner of sec. 28,11-19, a short distance due north of the small production found in the Grapevine Pool. The test will try a structure outlined by the use of Geophysical science and believed to be disassociated from the present producing area.

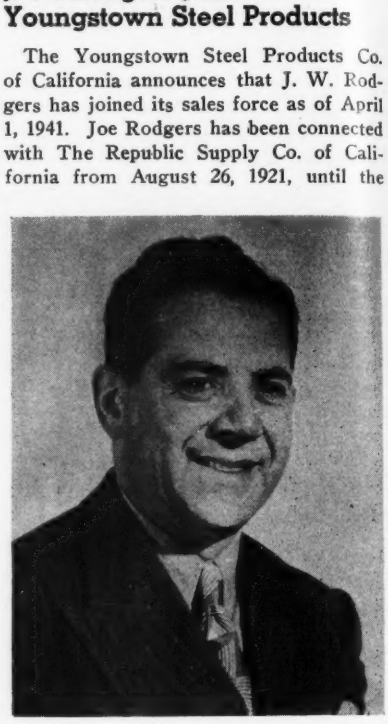
Santa Mora Works Belridge Wildcat

Santa Mora Trust's well No. 1 in sec. 10,28-20 of the Belridge area is cleaning out to deepen from 544 ft. Operations were suspended following the recent high winds which demolished the derrick. The immediate objective is shallow sands near 800 ft. which are believed to offer promise of production. Failing to find the shallow zone productive the well will be carried on in search of secondary objective sands believed to be near 1700 ft.

A little more than a half mile north of this try West Belridge Oil Co. is planning a shallow test of sec. 3,28-20 in search of comparable sands.

J. W. Rodgers Joins Youngstown Steel Products

The Youngstown Steel Products Co. of California announces that J. W. Rodgers has joined its sales force as of April 1, 1941. Joe Rodgers has been connected with The Republic Supply Co. of California from August 26, 1921, until the time of his resignation on April 1st to join The Youngstown Steel Products Co. of California.



J. W. Rodgers

Although Joe has been identified principally with the sale of oil well supplies, he has found time to become an almost too proficient golfer for his opponents, usually shooting just far enough into the seventies to win his matches. In addition to this, Joe has been a snappy ball player and has been responsible for the development of many champion softball teams in the oil field towns of the Los Angeles Basin. He is perhaps most proud of the part he has personally played in the development of Louie Novikoff, who was the leading batter in the Pacific Coast League last year and who hopes to accomplish the same record for the Chicago Cubs in the Big Leagues this year.

Mr. Rodgers will establish his headquarters at 1919 East N. Street, Wilmington.

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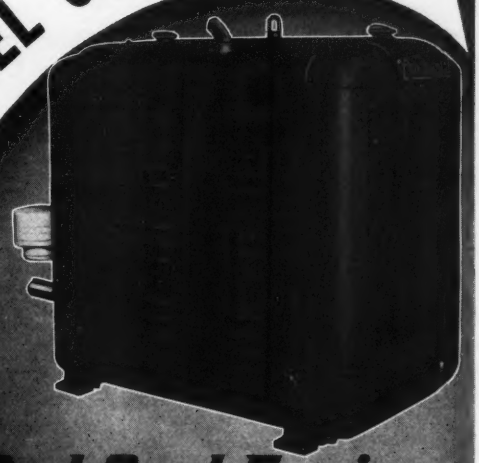
Development » » »

	New Rigs Up	Active Drilling	Producers Completed	Daily Initial Output	Active Producing	Abandoned Wells Drillers	Abandoned Wells Producers
Group No. 1							
Arvin	..	....	....	....	15	....	....
Belridge—North	1	2	2	500	68	....	....
Belridge—South	..	....	....	....	201	....	....
Canal	..	....	....	....	33	....	....
Canfield Ranch	..	....	....	....	1	....	....
Coalinga	12	15	12	17,268	949	2	....
Cole's Levee	2	4	3	1,061	35	....	....
Edison	1	1	....	....	94	....	....
Elk Hills	1	2	....	....	193	....	....
Fruitvale	..	....	....	....	167	....	1
Greeley	1	5	3	5,290	44	....	....
Kern River	..	2	....	....	1,567	....	....
Kettleman No. Dome	3	7	1	710	265	....	1
Lost Hills	..	....	....	....	268	....	....
McKittrick	..	1	....	....	200	....	....
Midway-Sunset	..	4	....	....	2,540	....	5
Mountain View	..	....	....	....	175	....	1
Mount Poso	..	....	1	417	299	1	....
Paloma	..	2	....	....	4	....	....
Rio Bravo	6	3	5	6,059	77	....	....
Round Mountain	1	1	....	....	222	....	....
Strand	..	1	....	....	8	....	....
Ten Section	3	4	4	6,513	83	....	....
Tupman	2	7	4	6,839	46	....	....
Union Avenue	..	....	1	100	1	....	....
Wasco	..	1	....	....	12	....	....
Wheeler Ridge	..	....	....	....	34	1	....
Group No. 2							
Capitan	..	....	....	....	44	....	....
Elwood	..	....	....	....	76	....	....
Rincon	2	2	2	694	70	....	....
San Miguelito	1	2	2	1,579	30	....	....
Santa Barbara	..	....	1	25	21	....	....
Santa Maria	..	....	....	....	181	....	....
Santa Maria Valley	2	2	3	2,337	146	....	....
Summerland	..	....	....	....	7	....	1
Ventura Avenue	5	6	3	5,250	338	....	....
Ventura-Newhall	9	11	4	7,169	504	2	6
Watsonville	..	....	....	....	7	....	....
Group No. 3							
Brea-Olinda	..	1	....	....	363	....	1
Coyote—East	1	....	1	135	87	....	....
Coyote—West	..	....	....	....	78	....	....
Dominguez	..	3	5	1,932	214	....	....
El Segundo	..	....	....	....	39	....	1
Huntington Beach	6	3	5	1,885	566	....	....
Inglewood	..	2	1	890	204	....	....
Lawndale	..	....	....	....	3	....	....
Long Beach	1	3	2	100	1,211	....	1
Los Angeles-Salt Lake	..	....	....	....	101	....	....
Montebello	..	1	1	126	354	....	....
Playa Del Rey	..	....	....	....	144	....	....
Potrero	..	1	....	....	20	....	....
Richfield	..	....	....	....	304	....	2
Rosecrans	4	6	3	671	177	....	....
Santa Fe Springs	..	1	1	Gas	584	....	1
Seal Beach	1	1	1	1,499	120	....	....
Torrance	1	1	1	140	633	....	4
Whittier	..	....	1	25	39	....	....
Wilmington	14	12	19	5,857	927	1	....
Miscellaneous Drilling	5	27	....	....	....	10	....
Group No. 4							
Buena Vista Lake	..	....	....	....	3	....	....
Buttonwillow	..	....	....	....	22	....	....
Chowchilla	..	....	....	....	....	....	....
Delano	..	....	....	....	21	....	....
Fairfield Knolls	..	....	....	....	....	....	....
Goleta	..	....	....	....	....	....	....
Marysville Buttes	..	....	....	....	3	....	....
McDonald Island	..	....	....	....	5	....	....
Rio Vista	..	....	....	....	25	....	....
Semi-Tropic	..	....	....	....	2	....	....
Tracy	..	....	....	....	4	....	....
Vernalis	..	....	1	Gas	....	....	....
January	85	147	93	75,071	15,278	17	25
December	62	170	64	50,356	15,059	2	26
Increase (*Decrease)	23	23*	29	24,715	219	15	1*

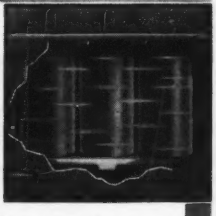
Lower FUEL CONSUMPTION



Red Seal Engines alone offer all these Improvements . . .

- INDIVIDUAL PORTING
- 100% COUNTERBALANCED CRANKSHAFT
- PRESSURE LUBRICATED VALVE TAPPETS

with Continental's FULL LENGTH WATER JACKET



Bottom portions of these full length jackets have a natural thermo-circulation. Upper portions are cooled by Continental's packless, ball bearing centrifugal pump. This pump discharges large quantities of water into a distributing tube located under valves. From this tube the cooling water is constantly sprayed onto each valve seat and circulates around the top of each cylinder bore. There are no hot spots. There is no heat distortion. Continental Red Seal Power hits a new high in smooth, balanced performance.

CHARLES W. CARTER COMPANY
Distributors in
SAN FRANCISCO, LOS ANGELES, SACRAMENTO, OAKLAND AND FRESNO

Continental Motors Corporation
MUSKEGON, MICHIGAN

Coastal District

Activity Promised For Coastal Region

Despite a return of rainy weather, new life is stirring in the Coastal regions of California which promises a new era of exploration and development such as has not been seen for several years. Behind the trend are three main factors headed by the recognized principle that oil companies must continually find new production to offset depletion of their reserves. There being but few undeveloped fields in the San Joaquin Valley and Los Angeles Basin at present, operators naturally turn to the Coastal regions which have been somewhat neglected of late years.

The second factor giving impetus to Coastal interest is the discovery of new fields in the Newhall-Castaic district near the Los Angeles-Ventura county boundary. Generally similar geological conditions extend from Bouquet Canyon westerly to the sea and the discoveries of Newhall - Potrero Aliso Canyon, Del Valle and Oak Canyon have led to much speculation as to the possibilities of new production, particularly in the Modelo, throughout the entire vast area.

A third stimulating factor is the improved market for heavy oils such as are found in many of the present fields of Santa Barbara and Ventura counties. Increased demand for fuel oil and improved refining methods have appreciably raised the demand for these crudes which until recently were a drug on the market. Prospects are good, too, for further upward price revisions of heavy grades in the opinion of some observers.

Favoring the independent operator, depths to objective horizons in the Coastal district are generally shallower than in other sections of the state. From a few feet to 6000 ft. is usually enough hole to look at the desired sand, Ventura Avenue being the notable exception.

C.C.M.O. Co. Cases Rincon Deep Test

Much interest is being shown in the C. C. M. O. Co.'s deep test of the Rincon field, Hobson No. C-9. Located on the south flank of the structure near the highway, the well encountered good oil sand from 7150 to 7250 ft. and a heavy gas showing at 7490 ft. Nine-inch casing is now standing cemented on bottom at 7539 ft. but it is unknown whether the showings will be tested at present or the hole deepened in search of more sands.

C.C.M.O. Co.'s last completion, Hobson No. B-16, was finished at 4800 ft. with production averaging 125 bbls. of oil and 130,000 cu. ft. of gas. Only other active well in the field is Hobson No. B-44 which is preparing to complete at 4850 ft.

Standard Oil Plans New Cat Canyon Well

Standard Oil Co. is making preliminary arrangements to drill its second well to the Monterey production found by Las Flores Land & Oil No. 1 nearly three years ago. No. 1 found no production when drilled vertically but with the hole whipstocked northeasterly to a point near the center of sec. 27,9-33, the well came in for 800 bbls. of heavy oil. Union Oil Co.'s Bell No. 11, drilled last year, is the only other well to produce this structure which lies immediately to the west of the West Cat Canyon field.

Union Plugs Orcutt Test

Finding the deep zone barren, Union Oil Co. plugged Cal-Coast No. 19 from 5675 ft. to the main producing horizon at 4040 ft. A test at 4280 ft. is reported to have recovered only muddy water. Cal-Coast No. 19, located in the south half of sec. 26,9-34, is the deepest ever drilled in this portion of the Santa Maria-Orcutt field.

Ventura Avenue Gets Big Wells

Two big wells were finished recently in the Ventura Avenue field with Tide Water Associated Oil Co. getting the largest in V.L. & W. No. 36 which finished at 9780 ft. to flow 3600 bbls. of clean oil. The Shell Oil Co.'s Taylor No. 133, located at the opposite end of the field, was bottomed at 8000 ft. and completed flowing 2730 bbls. a day.

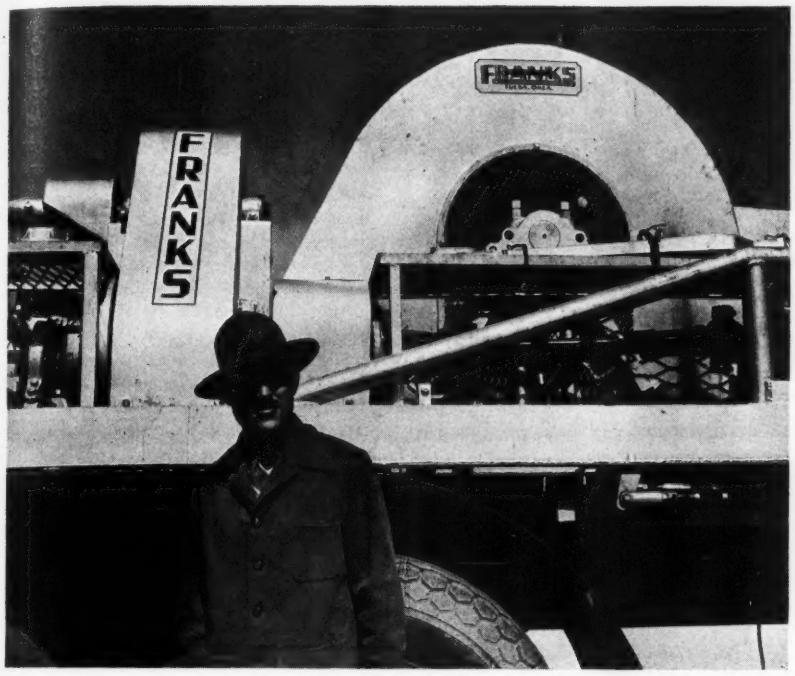
Lloyd Corp. will soon be ready to test No. 7 which has cemented casing at 9155 ft. Lloyd is spudding No. 8 while Alliance Petroleum Corp. is drilling two wells and the British American Oil Producing Co. is preparing to drill Hartmann No. 12.

Hopland Resumes At Wiley Canyon

Hopland Oil Co. is reported to have resumed drilling its No. 1 test well in Wiley Canyon, sec. 1,3-19. Depth is now below 1100 ft.

COASTAL COUNTIES WILDCATS

Area	Well	No.	Section	Depth	Status
	Santa Barbara County				
Elwood	The Texas Co., Bishop	A-3	13, 4-29		Location
Goleta	Del Mar Oil Co., Rowe	1	11, 4-28		Rig
	San Luis Obispo County				
Huasna	Tex Harvey Oil Corp., Gilmore Comm.	1	11, 32-14	4518	Idle
	Tex Harvey Oil Corp., Gilmore Comm.	2	11, 32-14	2200	Idle
	Ventura County				
Bardsdale	Hopland Oil Co.	1	1, 3-19	1056	Drilling
	Fairfield, F. E., Bardsdale	1	12, 3-20	920	Drilling
	Palma Oil Co.	1	8, 3-19		Rig
Ojai	Oil Prod. Maintenance, Inc. Byhara	1	12, 4-22	135	Drilling
Oxnard	Bender, E. A., Farrell	1A	5, 1-22	7005	Idle
Piru	Nelson, D. V., P.F.C.—C.H.	1	19, 4-18	1690	Idle
	Havlin & Pottenger, Alice	1	33, 4-18	1581	Drilling
	Oilexco, Inc., Newhall-Land	2	2, 3-18	570	Idle
	Oilexco, Inc., Stevens	1	34, 4-18	373	Idle
Santa Susana	Norell, Gordon, Dixie	1	15, 2-17		Location
Sespe	Chob Oil Co., Phillips	1	24, 4-20		Location
	InterCounties Fuel Co.	1A	22, 4-19	535	Drilling
	Maynard, Vaughn, Maynard	1	18, 4-19		Location
	McCaslin, W. E., Burson	1	19, 4-19	2050	Cleaning out
	Signal Petroleum Co., Hadley	7	13, 4-19	2885	Idle
South Mountain	Comstock Pet. Co.	1	17, 3-29	1800	Idle
	South Mountain Oil Co.	1	10, 3-20	2700	Drilling
Timber Canyon	Crude Oils, Inc., West	1	19, 4-20	152	Drilling
	Fletcher, A.B., Timber Canyon	3	18, 4-20	1360	Idle
	Johnson, Chas., P., Jr.	1	24, 4-21	110	Idle



Design Engineer James Moon of the Franks Manufacturing Corp., main offices in Tulsa, is being transferred to California to work with Hillman-Kelley, Inc., Franks California representative in Los Angeles. Mr. Moon is pictured standing beside one of Franks' Portable rotary drilling rigs, ready for shipment to California. He will service Franks equipment in California, and help to improve the design of Franks portable drilling and servicing units to meet conditions in California. Mr. Moon will also assist Franks' California representative in pushing sales of the Franks' telescoping servicing unit, the first unit of its kind to be used in California fields.

Richard Fenton Elected Stripper Well Group V.P.

Election of Richard Fenton, executive vice-president of the California Stripper Well Association, to the post of vice-president for California of the National Stripper Well Association, was announced today by A. D. Mitchell, president of the California organization. The election, which took place at the annual meeting of the national oil trade association in Dallas, Texas, "opens the way for representation of the interests of California producers of oil from stripper wells in the future activities of the strong national group," according to the announcement.

Richard Fenton

Mr. Fenton, widely known as a public relations expert, is a member-at-large of the Conservation Committee of California Oil Producers. He is also a member of the Allocation sub-committee of the state-wide conservation group, a member of the oil committees of the Long Beach Chamber of Commerce and the Wilmington Chamber of Commerce, and a member of the American Petroleum Institute.

Colorado Man to Drill Santa Susana Wildcat

Gordon Norell, former Colorado operator, has filed a proposal to drill a 5500 ft. wildcat well near the Ventura-Los Angeles county line in sec. 15, 2-17 about two miles west of Chatsworth Park and three and a half miles southeast of Santa Susana. Rotary drilling equipment will be used.

No wells have been drilled below 2000 ft. within a radius of several miles and very little is known of the geology of the area beyond the fact that marine sediments of Cretaceous age outcrop at the surface at the test location. The well will be known as Dixie No. 1.

Nomads Expand Two Committees

Additional members and revisions of standing committees of the Los Angeles Chapter of Nomads has been announced by Ernie Fowks, president of the chapter. The active committees now consist of the following:

Membership, Induction and Ritual Committee: Fred Ripley, chairman; Wallace Sawdon, vice-chairman; E. R. Smith, Induction Master, and Jack Ballagh.

Entertainment Committee: Bob Eiche, chairman; Roy Hitchcock, vice-chairman; Lou Bronzan, George Trembley, Roland Smith, Waldo Moore, Custer Morrow, Knight Templeton, and Tom Murphy.

The last five of the above members as indicated were appointed to assist Bob Eiche in reception duties; the others are purely entertainment.

Inglewood Set For Early Action

The stage is now set for considerable new drilling at the north end of the Inglewood field which came into the limelight with the completion of Federal Oil Co.'s Smith No. 1 for 2000 bbls. a month ago. Jefferson Oil Co., with Sam Brooks doing the drilling, is the first to make hole but it will not be long before R. R. Bush Oil Co., Federal Oil Co., Hogan Petroleum Co. and The Texas Co. follow suit. It is hoped that difficulties caused by Culver City's zoning ordinances will be overcome shortly.

Amerada Drilling Rio Vista Well

In the Rio Vista gas area activity is represented by Amerada Petroleum Corp.'s J. F. Wilcox No. 1 last reported drilling at 4112 ft. and in sec. 31,4n-3e. Actual operations are by Brown Drilling Co. under contract.

Olive-Orange Well Drills at 3000 Ft.

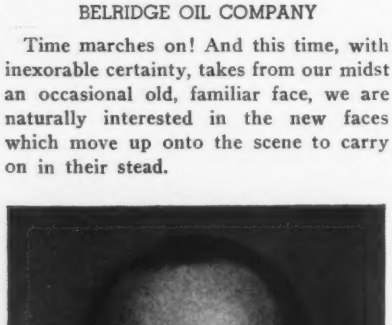
Tide Water Associated Oil Co.'s Olive-Orange No. 1, located midway between the towns from which it derives its name, is drilling and spot coring near the 3000 ft. level according to late advices.

Purchasing Personalities

By Leo S. Busby
Associate Editor
Southwest Purchasing Agent

BELRIDGE OIL COMPANY

Time marches on! And this time, with inexorable certainty, takes from our midst an occasional old, familiar face, we are naturally interested in the new faces which move up onto the scene to carry on in their stead.



Hudson C. Drake

On February 1st, the oil industry lost one of its most beloved figures upon the retirement of amiable Bill Wickersham, for many years purchasing agent of the Belridge Oil Company. Into his place stepped his young assistant, Hudson C. Drake. And it is upon this same Hudson Drake that we shall for a few moments focus our spotlight.

"Hud", as he is familiarly known, differs in many respects from the average oil industry P. A. as we have been accustomed to picture him. In the first place he is a native son of California, and any local P. A. who has escaped being born in Missouri, Nebraska, or Iowa, obviously has stamped upon him an undeniable mark of distinction. Hud was born right here in Los Angeles, and come October 20th next, will embark upon that period where "life begins at." As to his education, he takes a strong sentimental interest in "Home Coming" Day out at Los Angeles High, and when California plays S. C. at the Coliseum, you'll find him sitting on the shady side of the big saucer.

After returning to Los Angeles from Berkeley, Hud went to work for L. H. Butcher Company. He stayed there for a year or so and then took a clerical position in the purchasing department of the Belridge Oil Company. Gradually, durthe next two years, he worked himself into the position of assistant to Bill Wickersham, a post he held until Bill's recent retirement.

As purchasing agent for the Belridge Oil Company, Hud, in addition to handling procurement duties for the company itself, also takes care of the needs of its associates, the M. H. Whittier Company, Ltd., the Rodeo Land and Water Company, and the Midway Peerless Oil Company.

Hudson C. Drake is a tall, dark, rather nice looking chap (hope that photo we're getting does him justice) with a friendly manner you instinctively feel is genuinely sincere.

But we said Hud was different from most P. A.s. Well, he is. He doesn't give a hang about playing golf, and when he digs in his garden, he isn't looking for worms. Oh, he'll go ocean fishing now and then if someone throws him a heavy load of sales talk but the rod and reel have no particular attraction for him. Ever see a P. A. who didn't enjoy chasing a little white ball, or a hungry trout or yellowtail?

Hud's chief off-the-job interest, aside from a little weekly ten-pin exercise with the Belridge keglers, is his family. He has two boys, fourteen and six, and a little girl, twelve, and Hud opines that when you have a home in Alhambra with three active youngsters in it, and a lawn around it, and flowers behind it, and "all such stuff as that there", you don't have much time to tramp the fairways or stalk the finny denizens of the high mountains and deep ocean.

And now—a crowning distinction for H. C. D. Hud's assistant is a young lady! Yep, she's Miss Marjorie MacLean. Marjorie has been with Belridge for thirteen years, and doesn't think there's a thing unlucky about that. And neither does Belridge. Sure, fellas, we tried to get a photo but—anybody recommend a good course in salesmanship?

A.P.I. Petroleum Facts and Figures

A 1941 or seventh edition of "Petroleum Facts and Figures" is to be published by the American Petroleum Institute within the next few weeks. The volume, in its nearly 200 pages, will include the whole range of the petroleum industry — telling statistically how it works from oil well to service station, and where its products are used. The new edition of this reference book follows previous editions in form, but contains dozens of new tables and brings up to date, with many 1940 figures, practically all tables from the 1937 and 1939 editions. More than 240 tables are presented in the eight sections of the 1941 volume, which has for the first time a separate section for world data. Other divisions of the book, following the major branches and operations of the petroleum industry, cover: utilization, production, refining, transportation, marketing, prices and taxes, and general. The section on transportation particularly has been expanded, and will include, in addition to many new tables tracing the movement of petroleum throughout the United Staes, a complee list of U. S. tank ships of more than 500 gross tons. Gross and net tonnage, year built, owner, and cargo capacity, are given.

At least preliminary 1940 figures have been included for more than half of the tables. As far as possible, all data compiled by the various sources used up to March 15, 1941, are given; 1940 data for the remaining tables will not be available until later in 1941 and, for some tables, until 1942.

Price of the seventh edition is $1 postpaid, it may be ordered in advance of publication from the American Petroleum Institute, 50 West 50th Street, New York.

InterCounties Fuel Deepening Sespe Well

InterCounties Fuel Co. resumed operations in its Hinkler No. 1A and is cleaning out to deepen from 525 ft. The project is located in sec. 22,4-19 near the mouth of Sespe Creek.

New Well Spudded In Ojai District

Oil Production Maintenance, Inc. is drilling with a light portable cable tool outfit on the Byhara lease in sec. 12,4-22 in the Ojai district. Production will be sought at around 1000 ft.

Santa Maria Outpost Proves Good Producer

Fleisher No. 1, Union Oil Co.'s southeast outpost in sec. 31,10-33, proved to be an excellent producer when mechanical troubles were finally overcome and the well brought in. Completed on the pump, the initial 825 bbl. rate built up rapidly and when shut in after eight days, the yield was more than 1200 bbls. of 15.3 gravity clean oil. The hole is open from 4455 ft. to bottom at 4822 ft.

Another good well was obtained by Union Oil Co. in the completion of Nicolai No. 2 in the north half of sec.28,10-34. With 383 ft. open to bottom at 5255 ft., initial production was at the rate of 700 bbls. a day of 14 gravity oil. Stinson No. 2, in the same section, did not do so well and is good for only 50 bbls. a day of wet oil.

Production « « » » Development

(Figures of Production and Stocks are in barrels of 42 Gals.)

	Total Production February	—DAILY AVERAGE— Feb., 1941	Jan., 1941	Feb., 1940
Group No. 1				
Arvin	24,919	890	1,019	2,325
Belridge—North	276,924	9,890	10,418	11,374
Belridge—South	59,150	2,112	2,160	1,959
Canal	141,557	5,056	5,177	5,739
Canfield Ranch	1,248	45	45	53
Coalinga	942,645	33,666	33,670	21,570
Cole's Levee	147,050	5,252	5,052	3,043
Edison	78,482	2,803	2,667	2,106
Elk Hills	336,594	12,021	12,012	12,329
Fruitvale	151,198	5,400	5,259	5,795
Greeley	151,373	5,406	5,271	3,171
Kern River	304,526	10,876	9,982	11,157
Kettleman North Dome	1,093,942	39,069	39,277	50,937
Lost Hills	91,095	3,253	3,296	4,156
McKittrick	101,203	3,614	3,509	3,460
Midway-Sunset	1,341,287	47,903	47,774	52,043
Mountain View	155,813	5,565	5,637	7,153
Mount Poso	255,713	9,132	8,957	9,633
Paloma	13,660	488	396	184
Rio Bravo	322,440	11,516	11,037	8,322
Round Mountain	206,529	7,376	7,539	7,595
Strand	37,896	1,354	1,391	1,142
Ten Section	360,520	12,876	11,894	8,417
Tupman	216,579	7,735	7,224	1,063
Union Avenue	3,569	127	8	.....
Wasco	50,621	1,808	1,592	1,449
Wheeler Ridge	8,164	292	288	317
Group No. 2				
Capitan	48,394	1,728	1,743	1,954
Elwood	87,373	3,120	3,183	3,820
Rincon	130,202	4,650	4,805	3,785
San Miguelito	106,924	3,819	3,704	2,955
Santa Barbara	6,275	224	235	187
Santa Maria	125,420	4,479	5,788	3,544
Santa Maria Valley	564,054	20,145	20,233	11,713
Summerland	225	8	14	23
Ventura Avenue	947,119	33,826	33,760	37,144
Ventura-Newhall	314,151	11,220	10,836	7,028
Watsonville	700	25	25	25
Group No. 3				
Brea-Olinda	155,374	5,549	5,570	5,652
Coyote—East	100,410	3,586	3,732	3,222
Coyote—West	238,607	8,522	8,680	6,083
Dominguez	599,579	21,413	20,151	19,636
El Segundo	43,097	1,539	1,596	2,575
Huntington Beach	763,943	27,284	26,629	27,583
Inglewood	326,228	11,651	11,145	12,396
Lawndale	845	30	34	44
Long Beach	1,182,740	42,241	41,779	45,005
Los Angeles-Salt Lake	16,384	585	532	513
Montebello	413,430	14,765	15,371	23,751
Playa Del Rey	103,239	3,687	3,888	4,239
Potrero	61,092	2,182	2,192	1,937
Richfield	203,058	7,252	7,395	8,750
Rosecrans	311,641	11,130	11,812	10,031
Santa Fe Springs	679,326	24,262	24,286	25,840
Seal Beach	178,800	6,386	6,533	7,566
Torrance	259,770	9,277	9,194	12,315
Whittier	6,235	223	208	1,006
Wilmington	2,308,149	82,434	81,474	81,553
Total	17,157,481	612,767	609,078	608,367
January	18,881,415	609,078		
Increase (*Decrease)	1,723,934*	3,689		

	New Rigs Up	Producers Active Drilling	Producers Completed	Daily Initial Output	Active Producing	Abandoned Wells Drillers	Abandoned Wells Producers
Group No. 1							
Arvin	..	....	....	....	15	....	....
Belridge—North	1	2	1	401	72	....	....
Belridge—South	..	....	....	....	206	....	....
Canal	..	....	....	....	34	....	....
Canfield Ranch	..	....	....	....	1	....	....
Coalinga	4	15	5	9,945	931	....	1
Cole's Levee	2	4	1	558	38	....	....
Edison	..	1	....	....	93	....	....
Elk Hills	1	2	....	....	193	....	....
Fruitvale	..	....	....	....	166	....	....
Greeley	..	5	3	3,465	47	....	....
Kern River	..	....	1	140	1,584	....	....
Kettleman North Dome	..	8	1	268	277	....	....
Lost Hills	..	....	....	....	275	1	....
McKittrick	1	1	1	150	201	2	....
Midway-Sunset	..	3	....	....	2,528	....	3
Mountain View	..	....	....	....	172	....	....
Mount Poso	3	1	....	....	303	....	1
Paloma	..	1	1	1,220	5	....	....
Rio Bravo	1	5	1	1,268	78	....	....
Round Mountain	1	....	1	240	223	1	....
Strand	..	1	....	....	7	....	....
Ten Section	6	3	5	11,697	90	....	....
Tupman	1	5	2	1,227	47	....	....
Union Avenue	1	1	....	....	1	....	....
Wasco	..	....	1	3,136	13	....	....
Wheeler Ridge	..	....	....	....	34	....	..
Group No. 2							
Capitan	..	....	....	....	47	....	....
Elwood	..	....	....	....	76	....	....
Rincon	..	1	1	73	69	1	....
San Miguelito	..	1	2	609	35	....	....
Santa Barbara	..	....	....	....	21	....	....
Santa Maria	1	1	....	....	181	1	....
Santa Maria Valley	1	2	1	1,304	148	1	....
Summerland	1	....	....	....	6	1	1
Ventura Avenue	1	7	2	4,089	347	2	1
Ventura-Newhall	4	8	4	2,910	508	4	....
Watsonville	..	....	....	....	7	....	....
Group No. 3							
Brea-Olinda	..	....	1	75	344	....	....
Coyote—East	..	1	....	....	87	....	....
Coyote—West	..	....	....	....	75	....	....
Dominguez	2	3	....	....	214	....	....
El Segundo	..	....	....	....	38	....	2
Huntington Beach	5	3	5	3,609	573	2	4
Inglewood	..	2	....	....	198	....	....
Lawndale	..	....	....	....	3	....	....
Long Beach	1	2	2	278	1,218	1	5
Los Angeles-Salt Lake	..	....	....	....	99	....	2
Montebello	..	1	....	....	357	2	1
Newport	..	....	....	....	....	....	1
Playa Del Rey	..	....	....	....	144	....	....
Potrero	1	1	1	450	22	....	....
Richfield	..	....	....	....	303	....	....
Rosecrans	..	7	....	....	177	5	....
Santa Fe Springs	..	....	1	150	579	....	....
Seal Beach	..	1	....	....	119	....	....
Torrance	1	1	....	....	632	....	....
Whittier	..	....	....	....	39	....	....
Wilmington	9	9	9	4047	932	1	....
Miscellaneous Drilling	6	24	....	....	....	10	....
Group No. 4—Gas Fields							
Buena Vista Lake	..	....	....	....	1	....	....
Buttonwillow	..	....	....	....	22	....	....
Chowchilla	..	....	....	....	....	....	....
Delano	..	....	....	....	21	....	....
Fairfield Knolls	..	....	....	....	....	....	....
Goleta	..	....	....	....	....	....	....
Marysville Buttes	..	....	....	....	3	....	....
McDonald Island	..	....	....	....	5	....	....
Rio Vista	..	....	....	....	23	....	....
Semi-Tropic	..	....	....	....	3	....	....
Tracy	..	....	....	....	4	....	....
Vernalis	1	....	....	....	....	....	....
February	57	133	53	51,309	15,312	35	22
January	85	147	93	75,071	15,278	17	25
Decrease (*Increase)	28	14	40	23,762	34*	18*	3

SUMMARY OF CALIFORNIA OILFIELD OPERATIONS FOR FEBRUARY, 1941—STOCKS HELD IN PACIFIC COAST TERRITORY BY CALIFORNIA OIL COMPANIES

	Feb. 28, 1941	Jan. 31, 1941	February Changes	Feb. 29, 1940
1. Gasoline-Bearing Crude	36,894,684	35,822,914	+1,071,770	35,995,435
2. Non-Gasoline-Bearing Crude	11,898,116	11,860,777	+ 37,339	13,405,906
3. Unblended Nat. Gas	2,387,923	2,428,059	− 40,136	1,747,755
4. Gasoline (not including distributing and service stations)	15,458,793	15,343,155	+ 115,638	17,678,049
5. Naphtha Distillates	1,901,437[1]	1,944,979[1]	− 43,542	1,413,829[1]
6. Gas Oil and Diesel Oil	9,944,385	9,838,925	+ 105,460	8,980,220
7. Fuel Oil Residuum	57,941,724	58,825,656	− 883,932	65,648,712
8. All Other Stocks	8,358,741[2]	8,216,267[2]	+ 142,474	8,339,383[2]
	144,785,803	144,280,732	+ 505,071	153,209,289
[1]Estimated amount of unfinished gasoline contained in item 5	1,732,317	1,760,130		1,163,797
[2]Coke included in item 8	488,858	525,519		1,083,825

Pressure-Weld Drill Pipe Joints

A new method of fabricating drill pipe and of reconditioning used drill pipe by welding on alloy steel tool joint members, designated the "Pressure-Weld Process," is offered by the Hydril Co., with service available at its factories at Houston, Texas, and Torrance, Calif. Any type of drill pipe, either externally upset, externally and internally upset, or internally upset, can be fabricated or reconditioned, and any type of thread and tool joint connection of either standard or any oversize dimension, can be supplied.

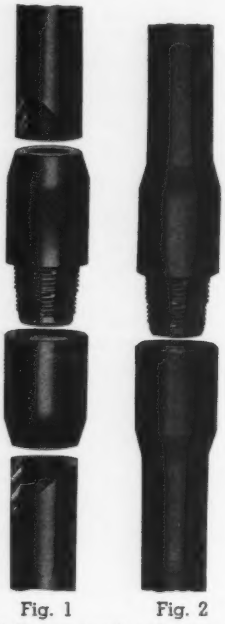


Fig. 1 Fig. 2

Fig. 1—Drill pipe and tool joint members before Pressure-Welding. Fig. 2—Finished Hydril Pressure-Weld drill pipe.

It has been found that abrasion by the formation and rig wear often impair the service of the tool joint connections of drill pipe while the pipe itself is still in safe condition for drilling. The Pressure-Weld process, as applied to reconditioning the drill pipe, consists of cutting off the ends of the pipe, leaving a short section of the upset, the end surface of which is machined flat and highly finished, (Figure 1.) A heavy alloy steel box or pin blank is then welded to the pipe under controlled, uniform conditions of pressure and temperature.

The welding operation is performed in automatic machines especially designed and constructed for this work. These welding machines incorporate chucks which hold and rotate both the drill pipe and tool joint blank in accurate alignment all during the welding process, fixed rings of gas torches which heat the area of the weld both internally and externally before and during the formation of the weld, and powerful hydraulic jacks which unite the surfaces under pressure when welding temperature is reached. As is well known, welding takes place at low heat when high pressure is used. The low heat employed in the Pressure-Weld process does not break down the structure of the metal, and no metal is supplied from an outside source. Hence, the common weaknesses of welding such as brittleness, production of slag, and inclusion of foreign material in the weld are avoided. Controlled cooling follows the welding operation.

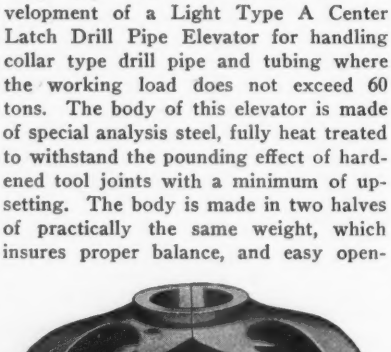
After welding, the joint is turned and bored to proper dimensions, threaded, and given a final refining heat treatment.

One style of finished Pressure-Weld joint is shown in Figure 2. This pin-to-box connection is a popular type employed in Pressure-Weld reconditioning of A.P.I. internal upset drill pipe, Hydril Types "IF" and "EIU" drill pipe, and others. The new heat treated alloy steel tool joint connections can be of any desired oversize dimension to provide for formation wear, and offer the same resistance to rig wear as any other tool joints.

A new illustrated bulletin describing various styles of Pressure Weld drill pipe joints is available from the Hydril Co.

BJ Light Type Center Latch Elevator

Byron Jackson Co. announces the development of a Light Type A Center Latch Drill Pipe Elevator for handling collar type drill pipe and tubing where the working load does not exceed 60 tons. The body of this elevator is made of special analysis steel, fully heat treated to withstand the pounding effect of hardened tool joints with a minimum of upsetting. The body is made in two halves of practically the same weight, which insures proper balance, and easy opening and closing. The width of the body below the trunnions is held at a minimum to allow more room for the links, prevent binding and permit the lift to be exerted directly under the tool joint or tubing collar with no undue stress on the elevator trunnions.



The operating handles have an underhanging knob at the outer end which provides a safe, easy grip. Stop guards placed toward the rear of the handles prevent the operator from crushing his hands between the handles and links.

The elevator is locked by a patented T-Head Spring Latch which fits into a recess in the body where it cannot be accidentally knocked open when "tailing out." The outer end of the Latch is curved as a convenient hand hold when opening the elevator.

The BJ Light Type A Elevator comes equipped with curved Link Blocks of new design, which allow free movement of the elevator links when the elevator is being opened or closed. The new type Link Blocks are hinged at the top, close downwardly, and are securely bolted in place. This design makes a C-link effect when the Link Blocks are closed, increasing the strength of the elevator trunnions.

Thorough lubrication of the elevator is effected through a standard grease gun connection in the rear of the elevator.

Complete information about the BJ Light Type A Center Latch Elevator may be secured from Byron Jackson Co., P. O. Box 2017 Terminal Annex, Los Angeles, Calif.

Chob to Drill Sespe Project

Chob Oil Co., which takes its name from the initials of its owners, has moved in a portable cable tool rig to drill a shallow test near the east quarter corner of sec. 24,4-20. The well will be called Phillips No. 1.

Crude Oils Spuds At Timber Canyon

Crude Oils, Inc., is drilling below 152 ft. in its Timber Canyon well according to President Geo. Goodrum. Location is on the west lease in sec. 19,4-20.

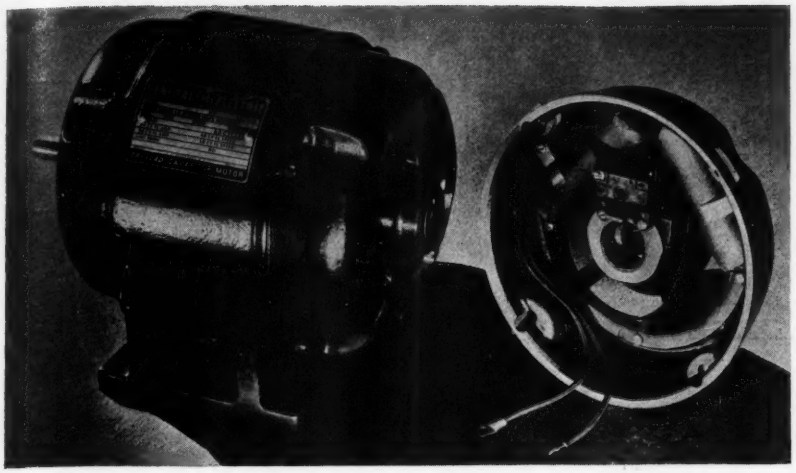
Fairfield Drills Bardsdale No. 1

On the old Union Oil Co. Robertson lease at Bardsdale, Freeman E. Fairfield of the Oil Tool Corp. is drilling his first well at 970 ft.

Eureka Canyon Test Stops at 1700 Ft. Mark

Havlin & Pottenger's Alice No. 1, located in sec. 33,4-18 in Eureka Canyon, stopped drilling at 1715 ft. pending a decision on whether to test 800 ft. showings or deepen.

Engineering, Technology, latest news—twice a month in California Oil World.



New General Electric Tri-Clad capacitor motor. The end shield to the right of the motor shows the location of the capacitors and transfer switch.

General Electric Offers Tri-Clad Capacitor Motor

As an extension of its recently announced line of new polyphase induction motors, General Electric now offers a new Tri-Clad capacitor motor designed to meet a large number of varied industrial applications. Like the polyphase Tri-Clad motor, this capacitor motor features modern appearance, and better mechanical and electrical protection as well as protection against operating wear and tear.

The new capacitor motor may be obtained with either ball-bearing or sleeve-bearing construction, and is available in two types, Type KC and Type KCJ. The Type KC is designed particularly for applications requiring moderate starting torques such as fans, blowers, and centrifugal pumps. The Type KCJ designed for compressors, loaded conveyors, reciprocating pumps, and any other applications requiring high starting torque. The capacitors are mounted inside the end shield on the normal-torque motor, while on the high-starting torque motor, 1½ hp and larger, the capacitors are mounted in a compact case on top of the motor frame.

In both of its forms, the capacitor motor incorporates all of the protective features of the Tri-Clad line: 1) complete mechanical protection through the use of a cast-iron frame, 2) electric protection made possible by the use of Formex wire in the magnet coils, and 3) improved bearing design and lubricating arrangements. It also utilizes the cast-aluminum rotor and double-end ventilation. In addition, it offers many convenience features.

The protected frame and end shields minimize contact of vital motor parts with foreign material while also protecting it against accidental blows in handling or similar rough usage. The new-type Formex insulation, dust-tight bearings, and the use of Glyptal in the priming and finishing paints armor it against the attack of harmful agents.

The transfer switch is a simple sturdy device which transfers the motor from the starting to running connection. It consists of a centrifugal mechanism mounted on the rotor shaft, and a stationary switch located in the end shield. As the motor approaches full speed, centrifugal force moves the collar of the rotating mechanism away from the switch by snap action, thus causing the switch to open.

A new pressed-steel conduit box provides unusually large working space and simplifies installation in close quarters. The box may be mounted in any one of four positions.

Clearly marked terminals permanently identify the leads. A graphic, easy-to-read connection plate of stainless steel shows external connections.

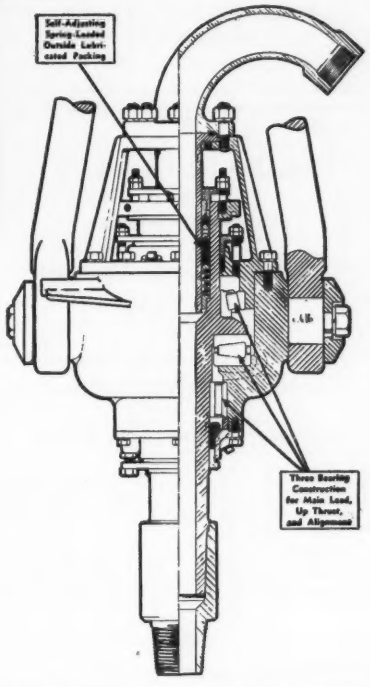
Franks Manufacturing Offers Improved Swivel

An improved swivel with ample capacity for the handling of 8500 ft. of 3½ in. O.D. drill pipe has been designed and produced by the Franks Manufacturing Corp. of Tulsa, represented on the Pacific Coast by Hillman-Kelley, Los Angeles.

Built for a long life of uninterrupted service, the improved swivel incorporates all the features of the deepest hole, highest speed swivels, reduced to a smaller compact size. On a test, one Franks swivel cut better than 35,000 feet of hole without need of repacking.

A three-bearing construction—eliminating wobbling—is utilized, including a main thrust, a combination up-thrust and alignment, and a lower stem alignment bearing. Leaks are eliminated through the use of self-energizing packing, requiring no adjustment.

The compactness of the Franks swivel—only 65 inches in length including the bail—results in added clearance in portable derricks, shortens the tool string, and provides more head room in short derricks.


Self-Adjusting Spring-Loaded Outside Lubricated Packing
Three Bearing Construction for Main Load, Up Thrust, and Alignment

Maximum static capacity of the swivel is 150,000 pounds, and design capacity at 100 r.p.m. is 100,000 pounds. The housing material is cast steel, while that of the bail is of S.A.E. 1030 forged steel, 3 in. in diameter, and the wash pipe, S.A.E. 3140 steel hardened to 500 Brinnell.

Lubrication of the bearings is through sealed oil bath. Packing is chevron type, spring loaded.

Approximate weight of the improved Franks swivel is 876 pounds.

Tulare Co. Try Still Working

V. F. Arnold's Terra Bella Irrigation District No. 1 in sec. 5,23-28 near the City of Terra Bella in Tulare county, is coring at 257 ft. in reportedly very hard formation.

Field Builds Rig For Shiells Well

Oliver C. Field has completed the derrick for Calumet No. B-4 which will be the first new well for Shiells Canyon this year. Location is in last year's hot spot in sec. 3,3-19.

Business and Professional Directory

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Oil Men's Calendar

Calif. Natural Gasoline Association. Los Angeles Chapter—Meets 1st Thursday Each Month, Barker Bros. Bldg., Los Angeles—Dinner at 6:00 (Optional). Taft Chapter—Meets Third Thursday Each Month.

American Society of Mechanical Engineers—Los Angeles Section—Meets 2nd Thursday Each Month—Barker Bros. Bldg., Los Angeles. Dinner at 6:30 (Optional).

April

23-25—Natural Gasoline Assn. of America, annual convention, Baker Hotel, Dallas.

24-25—National Petroleum Assn., Cleveland Hotel, Cleveland, Ohio.

May

5-8—American Gas Assn., Natural Gas Section, Dallas, Texas.

19-23—American Petroleum Institute, 11th mid-year meeting, Mayo Hotel, Tulsa, Okla.

June

23-27—American Society for Testing Materials, 44th annual meeting, Palmer House, Chicago, Ill.

November

3-7—American Petroleum Institute, 22nd annual meeting, San Francisco, Calif.

New Hydril Blowout Preventer

An addition to the line of Type "R" Blowout Preventers is offered by the Hydril Co., 714 West Olympic Blvd., Los Angeles, Calif. The new blowout preventer, designated the No. 3 Size, is designed for use as a primary blowout preventer and can be used with auxiliaries such as ram-type control equipment of all kinds as well as the larger models in the Type "R" line.

Packing units with bores of various sizes are supplied to give the pack-off range required by particular conditions. The packing unit with 10-inch bore will allow the passage of bits and tools used to 11¾-inch casing, and will seal off around drill string members from 9⅞-inches O. D. to 3½-inches O. D. When the packing unit with 8¾-inch bore is used, bits and other tools that will run inside of 9⅝-inch casing will pass through the blowout preventer. This packing unit seals around drill string members as small as 2⅞-inches O. D.

A large reserve of material is provided in the packing unit to withstand wear occasioned by the rotation of the Kelly or drill pipe, and by stripping tool joints, casing protectors and other large-diameter portions of the drill string under pressure.

The blowout preventer head is equipped with lugs for attaching a special kelly packer. This assembly packs off either the square or hexagonal kelly and permits prolonged drilling under pressure without imposing undue wear on the packing unit of the blowout preventer.

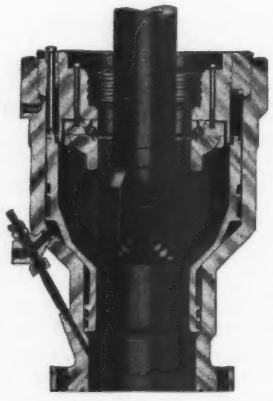

Fig. 1

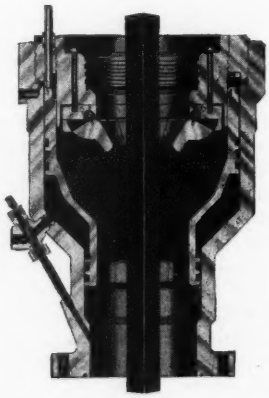

Fig. 2

Fig. 1—Bit passes through packing unit without removal of parts.
Fig. 2—Packing unit seals on any Kelly or other member of drill string.